TestAmerica Canton

Sample ID: BERM-1

Trace Level Organic Compounds

Lot - Sample #....:	H5H160405 - 014	**Work Order #....:**	M7F0A1AC	**Matrix....:**	SOLID
Date Sampled....:	08/13/15	**Date Received....:**	08/15/15	**Dilution Factor:**	1
Prep Date....:	08/17/15	**Analysis Date....:**	08/25/15	**Percent Moisture**	16
Prep Batch # ....:	5229015				
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	D2A	**Method:**	SW846 8290A
Analyst ID....:	Linda K. McWhirter				

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Canton

Sample ID: POND-1

Trace Level Organic Compounds

Lot - Sample #....:	H5H160405 - 015	**Work Order #....:**	M7F0C1AC	**Matrix....:**	SOLID
Date Sampled....:	08/13/15	**Date Received....:**	08/15/15	**Dilution Factor:**	1
Prep Date....:	08/17/15	**Analysis Date....:**	08/25/15	**Percent Moisture**	7.8
Prep Batch # ....:	5229015				
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	D2A	**Method:**	SW846 8290A
Analyst ID....:	Linda K. McWhirter				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.1	0.17	pg/g
1,2,3,7,8-PeCDD	ND		5.4	0.10	pg/g
1,2,3,4,7,8-HxCDD	**0.44**	**Q B J**	**5.4**	**0.066**	**pg/g**
1,2,3,6,7,8-HxCDD	**1.0**	**Q B J**	**5.4**	**0.067**	**pg/g**
1,2,3,7,8,9-HxCDD	**1.4**	**C B J**	**5.4**	**0.063**	**pg/g**
1,2,3,4,6,7,8-HpCDD	**15**	**B**	**5.4**	**0.14**	**pg/g**
OCDD	**170**	**B**	11	**0.19**	**pg/g**
2,3,7,8-TCDF	**0.93**	**Q J**	**1.1**	**0.10**	**pg/g**
1,2,3,7,8-PeCDF	ND		5.4	0.066	pg/g
2,3,4,7,8-PeCDF	ND		5.4	0.059	pg/g
1,2,3,4,7,8-HxCDF	**0.97**	**C B J**	**5.4**	**0.048**	**pg/g**
1,2,3,6,7,8-HxCDF	**0.46**	**B J**	**5.4**	**0.045**	**pg/g**
2,3,4,6,7,8-HxCDF	**0.40**	**Q J**	**5.4**	**0.053**	**pg/g**
1,2,3,7,8,9-HxCDF	ND		5.4	0.067	pg/g
1,2,3,4,6,7,8-HpCDF	**3.9**	**B J**	**5.4**	**0.044**	**pg/g**
1,2,3,4,7,8,9-HpCDF	**0.75**	**B J**	**5.4**	**0.073**	**pg/g**
OCDF	**9.0**	**B J**	11	**0.042**	**pg/g**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	79	40 - 135
13C-1,2,3,7,8-PeCDD	87	40 - 135
13C-1,2,3,4,7,8-HxCDD	68	40 - 135
13C-1,2,3,6,7,8-HxCDD	73	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	77	40 - 135
13C-OCDD	81	40 - 135
13C-2,3,7,8-TCDF	71	40 - 135
13C-1,2,3,7,8-PeCDF	88	40 - 135
13C-2,3,4,7,8-PeCDF	89	40 - 135
13C-1,2,3,4,7,8-HxCDF	78	40 - 135
13C-1,2,3,6,7,8-HxCDF	75	40 - 135
13C-2,3,4,6,7,8-HxCDF	73	40 - 135
13C-1,2,3,7,8,9-HxCDF	71	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	81	40 - 135
13C-1,2,3,4,7,8,9-HpCDF	75	40 - 135
13C-OCDF	62	40 - 135

TestAmerica Canton

Sample ID: POND-1

Trace Level Organic Compounds

Lot - Sample #....:	H5H160405 - 015	**Work Order #....:**	M7F0C1AC	**Matrix....:**	SOLID
Date Sampled....:	08/13/15	**Date Received....:**	08/15/15	**Dilution Factor:**	1
Prep Date....:	08/17/15	**Analysis Date....:**	08/25/15	**Percent Moisture**	7.8
Prep Batch # ....:	5229015				
Initial Wgt/Vol :	10.1 g	**Instrument ID....:**	D2A	**Method:**	SW846 8290A
Analyst ID....:	Linda K. McWhirter				

Sample results, minimum levels, and estimated detection limits are reported on a dry weight basis and have been adjusted for percent moisture.

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Co-eluting isomer.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

TestAmerica Canton

Sample ID: EB

Trace Level Organic Compounds

Lot - Sample #....:	H5H160405 - 016	**Work Order #....:**	M7F0D1AA	**Matrix....:**	WATER
Date Sampled....:	08/13/15	**Date Received....:**	08/15/15	**Dilution Factor:**	1
Prep Date....:	08/23/15	**Analysis Date....:**	08/24/15		
Prep Batch # ....:	5233015				
Initial Wgt/Vol :	1052 mL	**Instrument ID....:**	D2A	**Method:**	SW846 8290A
Analyst ID....:	Linda K. McWhirter				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		9.5	0.32	pg/L
1,2,3,7,8-PeCDD	ND		48	0.11	pg/L
1,2,3,4,7,8-HxCDD	ND		48	0.28	pg/L
1,2,3,6,7,8-HxCDD	ND		48	0.30	pg/L
1,2,3,7,8,9-HxCDD	ND		48	0.27	pg/L
1,2,3,4,6,7,8-HpCDD	ND		48	0.54	pg/L
OCDD	**2.6**	**B J**	**95**	**0.26**	**pg/L**
2,3,7,8-TCDF	ND		9.5	0.40	pg/L
1,2,3,7,8-PeCDF	ND		48	0.28	pg/L
2,3,4,7,8-PeCDF	ND		48	0.29	pg/L
1,2,3,4,7,8-HxCDF	ND		48	0.26	pg/L
1,2,3,6,7,8-HxCDF	ND		48	0.25	pg/L
2,3,4,6,7,8-HxCDF	ND		48	0.27	pg/L
1,2,3,7,8,9-HxCDF	ND		48	0.33	pg/L
1,2,3,4,6,7,8-HpCDF	ND		48	0.14	pg/L
1,2,3,4,7,8,9-HpCDF	ND		48	0.21	pg/L
OCDF	**0.83**	**Q B J**	**95**	**0.11**	**pg/L**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	85	40 - 135
13C-1,2,3,7,8-PeCDD	79	40 - 135
13C-1,2,3,4,7,8-HxCDD	77	40 - 135
13C-1,2,3,6,7,8-HxCDD	79	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	83	40 - 135
13C-OCDD	85	40 - 135
13C-2,3,7,8-TCDF	86	40 - 135
13C-1,2,3,7,8-PeCDF	87	40 - 135
13C-2,3,4,7,8-PeCDF	76	40 - 135
13C-1,2,3,4,7,8-HxCDF	80	40 - 135
13C-1,2,3,6,7,8-HxCDF	84	40 - 135
13C-2,3,4,6,7,8-HxCDF	83	40 - 135
13C-1,2,3,7,8,9-HxCDF	86	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	83	40 - 135
13C-1,2,3,4,7,8,9-HpCDF	85	40 - 135
13C-OCDF	74	40 - 135

TestAmerica Canton

Sample ID: EB

Trace Level Organic Compounds

Lot - Sample #....:	H5H160405 - 016	**Work Order #....:**	M7F0D1AA	**Matrix....:**	WATER
Date Sampled....:	08/13/15	**Date Received....:**	08/15/15	**Dilution Factor:**	1
Prep Date....:	08/23/15	**Analysis Date....:**	08/24/15		
Prep Batch # ....:	5233015				
Initial Wgt/Vol :	1052 mL	**Instrument ID....:**	D2A	**Method:**	SW846 8290A
Analyst ID....:	Linda K. McWhirter				

QUALIFIERS

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated Result.
Q	Estimated maximum possible concentration (EMPC).

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H5H170000 - 015B	**Work Order #....:**	M7F0K1AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	08/17/15	**Analysis Date....:**	08/24/15	**Percent Moisture:**	0.0
Prep Batch # ....:	5229015				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	D2A	**Method:**	SW846 8290A
Analyst ID....:	Linda K. McWhirter				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		1.0	0.077	pg/g
1,2,3,7,8-PeCDD	ND		5.0	0.026	pg/g
1,2,3,4,7,8-HxCDD	**0.065**	**Q J**	**5.0**	**0.013**	**pg/g**
1,2,3,6,7,8-HxCDD	**0.059**	**Q J**	**5.0**	**0.013**	**pg/g**
1,2,3,7,8,9-HxCDD	**0.071**	**J**	**5.0**	**0.012**	**pg/g**
1,2,3,4,6,7,8-HpCDD	**0.16**	**Q J**	**5.0**	0.026	**pg/g**
OCDD	**0.61**	**J**	**10**	**0.012**	**pg/g**
2,3,7,8-TCDF	ND		1.0	0.012	pg/g
1,2,3,7,8-PeCDF	ND		5.0	0.014	pg/g
2,3,4,7,8-PeCDF	ND		5.0	0.014	pg/g
1,2,3,4,7,8-HxCDF	**0.071**	**Q J**	**5.0**	**0.012**	**pg/g**
1,2,3,6,7,8-HxCDF	**0.087**	**Q J**	**5.0**	**0.012**	**pg/g**
2,3,4,6,7,8-HxCDF	ND		5.0	0.012	pg/g
1,2,3,7,8,9-HxCDF	**0.13**	**J**	**5.0**	**0.015**	**pg/g**
1,2,3,4,6,7,8-HpCDF	**0.12**	**Q J**	**5.0**	**0.010**	**pg/g**
1,2,3,4,7,8,9-HpCDF	**0.13**	**Q J**	**5.0**	**0.019**	**pg/g**
OCDF	0.42	**Q J**	**10**	**0.011**	**pg/g**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	69	40 - 135
13C-1,2,3,7,8-PeCDD	53	40 - 135
13C-1,2,3,4,7,8-HxCDD	77	40 - 135
13C-1,2,3,6,7,8-HxCDD	78	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	74	40 - 135
13C-OCDD	62	40 - 135
13C-2,3,7,8-TCDF	72	40 - 135
13C-1,2,3,7,8-PeCDF	57	40 - 135
13C-2,3,4,7,8-PeCDF	53	40 - 135
13C-1,2,3,4,7,8-HxCDF	80	40 - 135
13C-1,2,3,6,7,8-HxCDF	76	40 - 135
13C-2,3,4,6,7,8-HxCDF	80	40 - 135
13C-1,2,3,7,8,9-HxCDF	83	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	90	40 - 135
13C-1,2,3,4,7,8,9-HpCDF	72	40 - 135
13C-OCDF	54	40 - 135

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H5H170000 - 015B	**Work Order #....:**	M7F0K1AA	**Matrix....:**	SOLID
Dilution Factor:	1				
Prep Date....:	08/17/15	**Analysis Date....:**	08/24/15	**Percent Moisture:**	0.0
Prep Batch # ....:	5229015				
Initial Wgt/Vol :	10 g	**Instrument ID....:**	D2A	**Method:**	SW846 8290A
Analyst ID....:	Linda K. McWhirter				

QUALIFIERS

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H5H160405	**Work Order # ...:**	M7F0K1AC-LCS	**Matrix .....:**	SOLID
LCS Lot-Sample# :	H5H170000 - 015				
Prep Date .....:	08/17/15	**Analysis Date ..:**	08/23/15		
Prep Batch # ...:	5229015				
Dilution Factor :	1				
Analyst ID.....:	Linda K. McWhirter	**Instrument ID..:**	D2A	**Method.....:**	SW846 8290A
Initial Wgt/Vol:	10 g				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY		RECOVERY LIMITS
2,3,7,8-TCDD	**20.0**	**22.8**	**pg/g**	**114**		**(79 - 129)**
1,2,3,7,8-PeCDD	**100**	**109**	**pg/g**	**109**		**(79 - 129)**
1,2,3,4,7,8-HxCDD	**100**	**110**	**pg/g**	**110**	**B**	**(73 - 123)**
1,2,3,6,7,8-HxCDD	**100**	**100**	**pg/g**	**100**	**B**	**(74 - 124)**
1,2,3,7,8,9-HxCDD	**100**	**105**	**pg/g**	**105**	**B**	**(70 - 124)**
1,2,3,4,6,7,8-HpCDD	**100**	**106**	**pg/g**	**106**	**B**	**(73 - 123)**
OCDD	**200**	**198**	**pg/g**	**99**	**B**	**(75 - 125)**
2,3,7,8-TCDF	**20.0**	**21.9**	**pg/g**	**110**		**(75 - 125)**
1,2,3,7,8-PeCDF	**100**	**93.0**	**pg/g**	**93**		**(74 - 124)**
2,3,4,7,8-PeCDF	**100**	**106**	**pg/g**	**106**		**(75 - 125)**
1,2,3,4,7,8-HxCDF	**100**	**101**	**pg/g**	**101**	**B**	**(75 - 125)**
1,2,3,6,7,8-HxCDF	**100**	**104**	**pg/g**	**104**	**B**	**(76 - 126)**
2,3,4,6,7,8-HxCDF	**100**	**105**	**pg/g**	**105**		**(76 - 126)**
1,2,3,7,8,9-HxCDF	**100**	**103**	**pg/g**	**103**	**B**	**(77 - 127)**
1,2,3,4,6,7,8-HpCDF	**100**	**101**	**pg/g**	**101**	**B**	**(77 - 127)**
1,2,3,4,7,8,9-HpCDF	**100**	**106**	**pg/g**	**106**	**B**	**(73 - 123)**
OCDF	**200**	**201**	**pg/g**	**101**	**B**	**(49 - 128)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	69	(40 - 135)
13C-1,2,3,7,8-PeCDD	73	(40 - 135)
13C-1,2,3,4,7,8-HxCDD	76	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	79	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	90	(40 - 135)
13C-OCDD	64	(40 - 135)
13C-2,3,7,8-TCDF	70	(40 - 135)
13C-1,2,3,7,8-PeCDF	79	(40 - 135)
13C-2,3,4,7,8-PeCDF	74	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	85	(40 - 135)
13C-1,2,3,6,7,8-HxCDF	79	(40 - 135)
13C-2,3,4,6,7,8-HxCDF	82	(40 - 135)
13C-1,2,3,7,8,9-HxCDF	76	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	96	(40 - 135)
13C-1,2,3,4,7,8,9-HpCDF	83	(40 - 135)
13C-OCDF	59	(40 - 135)

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H5H160405	**Work Order # ...:**	M7FX01AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H5H160405 - 004		M7FX01AE-MSD		
Prep Date .....:	08/17/15	**Analysis Date ..:**	08/24/15		
Prep Batch # ...:	5229015				
Dilution Factor :	1				
Analyst ID.....:	Melissa A. Davidson	**Instrument ID..:**	D2A	**Method.....:**	SW846 8290A
Initial Wgt/Vol:	10 g				

PARAMETER	SAMPLE AMOUNT	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS
2,3,7,8-TCDD	**ND**	22.7	23.2	pg/g	102	(79 - 129)		
	ND	22.7	23.2	pg/g	102	(79 - 129)	0.20	(0 - 15)
1,2,3,7,8-PeCDD	1.1	114	126	pg/g	110	(79 - 129)		
	1.1	114	121	pg/g	106	(79 - 129)	3.4	(0 - 15)
1,2,3,4,7,8-HxCDD	1.1	114	123	pg/g	107 B	(73 - 123)		
	1.1	114	123	pg/g	107 B	(73 - 123)	0.35	(0 - 15)
1,2,3,6,7,8-HxCDD	2.1	114	113	pg/g	98 B	(73 - 127)		
	2.1	114	119	pg/g	103 B	(73 - 127)	5.0	(0 - 15)
1,2,3,7,8,9-HxCDD	2.7	114	128	pg/g	111 B	(65 - 141)		
	2.7	114	127	pg/g	110 B	(65 - 141)	0.89	(0 - 15)
1,2,3,4,6,7,8-HpCDD	41	114	155	pg/g	100 B	(54 - 138)		
	41	114	153	pg/g	99 B	(54 - 138)	1.0	(0 - 15)
OCDD	410	227	727	pg/g	139 B	(31 - 154)		
	410	227	707	pg/g	130 B	(31 - 154)	2.8	(0 - 15)
2,3,7,8-TCDF	1.0	22.7	19.8	pg/g	82 X	(75 - 125)		
	1.0	22.7	20.9	pg/g	88 X	(75 - 125)	5.7	(0 - 15)
1,2,3,7,8-PeCDF	0.42	114	111	pg/g	97	(74 - 124)		
	0.42	114	109	pg/g	95	(74 - 124)	1.9	(0 - 15)
2,3,4,7,8-PeCDF	0.66	114	113	pg/g	98	(75 - 125)		
	0.66	114	111	pg/g	97	(75 - 125)	1.6	(0 - 15)
1,2,3,4,7,8-HxCDF	1.6	114	121	pg/g	105 B	(75 - 125)		
	1.6	114	118	pg/g	102 B	(75 - 125)	3.0	(0 - 15)
1,2,3,6,7,8-HxCDF	0.77	114	116	pg/g	102 Q B	(73 - 131)		
	0.77	114	115	pg/g	101 B	(73 - 131)	0.72	(0 - 15)
2,3,4,6,7,8-HxCDF	0.56	114	118	pg/g	103	(76 - 129)		
	0.56	114	118	pg/g	104	(76 - 129)	0.28	(0 - 15)
1,2,3,7,8,9-HxCDF	**ND**	114	112	pg/g	98 B	(77 - 127)		
	ND	114	114	pg/g	100 B	(77 - 127)	1.7	(0 - 15)
1,2,3,4,6,7,8-HpCDF	6.5	114	118	pg/g	98 B	(72 - 134)		
	6.5	114	120	pg/g	100 B	(72 - 134)	1.2	(0 - 15)
1,2,3,4,7,8,9-HpCDF	0.63	114	116	pg/g	102 B	(73 - 124)		
	0.63	114	116	pg/g	101 B	(73 - 124)	0.69	(0 - 15)
OCDF	13	227	242	pg/g	101 B	(45 - 135)		
	13	227	245	pg/g	102 B	(45 - 135)	1.1	(0 - 15)

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H5H160405	**Work Order # ...:**	M7FX01AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H5H160405 - 004		M7FX01AE-MSD		
Prep Date .....:	08/17/15	**Analysis Date ..:**	08/24/15		
Prep Batch # ...:	5229015				
Dilution Factor :	1				
Analyst ID.....:	Melissa A. Davidson	**Instrument ID..:**	D2A	**Method.....:**	SW846 8290A
Initial Wgt/Vol:	10 g				

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	75	(40 - 135)
	73	(40 - 135)
13C-1,2,3,7,8-PeCDD	70	(40 - 135)
	69	(40 - 135)
13C-1,2,3,4,7,8-HxCDD	67	(40 - 135)
	68	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	74	(40 - 135)
	72	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	78	(40 - 135)
	81	(40 - 135)
13C-OCDD	74	(40 - 135)
	68	(40 - 135)
13C-2,3,7,8-TCDF	72	(40 - 135)
	70	(40 - 135)
13C-1,2,3,7,8-PeCDF	72	(40 - 135)
	72	(40 - 135)
13C-2,3,4,7,8-PeCDF	75	(40 - 135)
	69	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	68	(40 - 135)
	73	(40 - 135)
13C-1,2,3,6,7,8-HxCDF	68	(40 - 135)
	70	(40 - 135)
13C-2,3,4,6,7,8-HxCDF	69	(40 - 135)
	71	(40 - 135)
13C-1,2,3,7,8,9-HxCDF	73	(40 - 135)
	72	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	72	(40 - 135)
	73	(40 - 135)
13C-1,2,3,4,7,8,9-HpCDF	73	(40 - 135)
	76	(40 - 135)
13C-OCDF	65	(40 - 135)
	62	(40 - 135)

MATRIX/MATRIX SPIKE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H5H160405	**Work Order # ...:**	M7FX01AD-MS	**Matrix .....:**	SOLID
OS Lot-Sample# :	H5H160405 - 004		M7FX01AE-MSD		
Prep Date .....:	08/17/15	**Analysis Date ..:**	08/24/15		
Prep Batch # ...:	5229015				
Dilution Factor :	1				
Analyst ID.....:	Melissa A. Davidson	**Instrument ID..:**	D2A	**Method.....:**	SW846 8290A
Initial Wgt/Vol:	10 g				

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Q Estimated maximum possible concentration (EMPC).

X See project narrative.

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H5H210000 - 015B	**Work Order #....:**	M7GV91AA	**Matrix....:**	WATER
Dilution Factor:	1				
Prep Date....:	08/23/15	**Analysis Date....:**	08/24/15		
Prep Batch # ....:	5233015				
Initial Wgt/Vol :	1000 mL	**Instrument ID....:**	D2A	**Method:**	SW846 8290A
Analyst ID....:	Linda K. McWhirter				

PARAMETER	RESULT		MINIMUM LEVEL	ESTIMATED DETECTION LIMIT	UNITS
2,3,7,8-TCDD	ND		10	0.55	pg/L
1,2,3,7,8-PeCDD	ND		50	0.40	pg/L
1,2,3,4,7,8-HxCDD	ND		50	0.45	pg/L
1,2,3,6,7,8-HxCDD	ND		50	0.48	pg/L
1,2,3,7,8,9-HxCDD	ND		50	0.44	pg/L
1,2,3,4,6,7,8-HpCDD	ND		50	1.2	pg/L
OCDD	**6.2**	**Q J**	**100**	**0.39**	**pg/L**
2,3,7,8-TCDF	ND		10	0.85	pg/L
1,2,3,7,8-PeCDF	ND		50	0.79	pg/L
2,3,4,7,8-PeCDF	ND		50	0.73	pg/L
1,2,3,4,7,8-HxCDF	ND		50	0.64	pg/L
1,2,3,6,7,8-HxCDF	ND		50	0.62	pg/L
2,3,4,6,7,8-HxCDF	ND		50	0.62	pg/L
1,2,3,7,8,9-HxCDF	ND		50	0.79	pg/L
1,2,3,4,6,7,8-HpCDF	ND		50	0.28	pg/L
1,2,3,4,7,8,9-HpCDF	ND		50	0.51	pg/L
OCDF	**2.4**	**J**	**100**	**0.24**	**pg/L**

INTERNAL STANDARDS	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	84	40 - 135
13C-1,2,3,7,8-PeCDD	74	40 - 135
13C-1,2,3,4,7,8-HxCDD	76	40 - 135
13C-1,2,3,6,7,8-HxCDD	80	40 - 135
13C-1,2,3,4,6,7,8-HpCDD	77	40 - 135
13C-OCDD	73	40 - 135
13C-2,3,7,8-TCDF	83	40 - 135
13C-1,2,3,7,8-PeCDF	79	40 - 135
13C-2,3,4,7,8-PeCDF	80	40 - 135
13C-1,2,3,4,7,8-HxCDF	74	40 - 135
13C-1,2,3,6,7,8-HxCDF	79	40 - 135
13C-2,3,4,6,7,8-HxCDF	83	40 - 135
13C-1,2,3,7,8,9-HxCDF	81	40 - 135
13C-1,2,3,4,6,7,8-HpCDF	90	40 - 135
13C-1,2,3,4,7,8,9-HpCDF	76	40 - 135
13C-OCDF	66	40 - 135

Method Blank Report

Trace Level Organic Compounds

Lot - Sample #....:	H5H210000 - 015B	**Work Order #....:**	M7GV91AA	**Matrix....:**	WATER
Dilution Factor:	1				
Prep Date....:	08/23/15	**Analysis Date....:**	08/24/15		
Prep Batch # ....:	5233015				
Initial Wgt/Vol :	1000 mL	**Instrument ID....:**	D2A	**Method:**	SW846 8290A
Analyst ID....:	Linda K. McWhirter				

QUALIFIERS

J Estimated Result.

Q Estimated maximum possible concentration (EMPC).

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Client Lot # ...:	H5H160405	**Work Order # ...:**	M7GV91AC-LCS	**Matrix .....:**	WATER
LCS Lot-Sample# :	H5H210000 - 015				
Prep Date .....:	08/23/15	**Analysis Date ..:**	08/25/15		
Prep Batch # ...:	5233015				
Dilution Factor :	1				
Analyst ID.....:	Linda K. McWhirter	**Instrument ID..:**	D2A	**Method.....:**	SW846 8290A
Initial Wgt/Vol:	1000 mL				

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY		RECOVERY LIMITS
2,3,7,8-TCDD	**200**	**207**	**pg/L**	**103**		**(77 - 127)**
1,2,3,7,8-PeCDD	**1000**	**1100**	**pg/L**	**110**		**(78 - 128)**
1,2,3,4,7,8-HxCDD	**1000**	**1060**	**pg/L**	**106**		**(73 - 123)**
1,2,3,6,7,8-HxCDD	**1000**	**971**	**pg/L**	**97**		**(72 - 127)**
1,2,3,7,8,9-HxCDD	**1000**	**1150**	**pg/L**	**115**		**(76 - 126)**
1,2,3,4,6,7,8-HpCDD	**1000**	**1020**	**pg/L**	**102**		**(73 - 123)**
OCDD	**2000**	**1890**	**pg/L**	**94**	**B**	**(75 - 125)**
2,3,7,8-TCDF	**200**	**208**	**pg/L**	**104**		**(74 - 124)**
1,2,3,7,8-PeCDF	**1000**	**917**	**pg/L**	**92**		**(74 - 124)**
2,3,4,7,8-PeCDF	**1000**	**1030**	**pg/L**	**103**		**(74 - 124)**
1,2,3,4,7,8-HxCDF	**1000**	**1010**	**pg/L**	**101**		**(75 - 125)**
1,2,3,6,7,8-HxCDF	**1000**	**995**	**pg/L**	**100**		**(75 - 125)**
2,3,4,6,7,8-HxCDF	**1000**	**1030**	**pg/L**	**103**		**(76 - 126)**
1,2,3,7,8,9-HxCDF	**1000**	**974**	**pg/L**	**97**		**(76 - 126)**
1,2,3,4,6,7,8-HpCDF	**1000**	**978**	**pg/L**	**98**		**(71 - 121)**
1,2,3,4,7,8,9-HpCDF	**1000**	**1060**	**pg/L**	**106**		**(73 - 123)**
OCDF	**2000**	**2180**	**pg/L**	**109**	**B**	**(68 - 132)**

INTERNAL STANDARD	PERCENT RECOVERY	RECOVERY LIMITS
13C-2,3,7,8-TCDD	86	(40 - 135)
13C-1,2,3,7,8-PeCDD	81	(40 - 135)
13C-1,2,3,4,7,8-HxCDD	83	(40 - 135)
13C-1,2,3,6,7,8-HxCDD	87	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDD	81	(40 - 135)
13C-OCDD	86	(40 - 135)
13C-2,3,7,8-TCDF	88	(40 - 135)
13C-1,2,3,7,8-PeCDF	87	(40 - 135)
13C-2,3,4,7,8-PeCDF	81	(40 - 135)
13C-1,2,3,4,7,8-HxCDF	86	(40 - 135)
13C-1,2,3,6,7,8-HxCDF	88	(40 - 135)
13C-2,3,4,6,7,8-HxCDF	88	(40 - 135)
13C-1,2,3,7,8,9-HxCDF	89	(40 - 135)
13C-1,2,3,4,6,7,8-HpCDF	83	(40 - 135)
13C-1,2,3,4,7,8,9-HpCDF	81	(40 - 135)
13C-OCDF	72	(40 - 135)

LABORATORY CONTROL SAMPLE DATA REPORT

Trace Level Organic Compounds

Notes:

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Sample Receipt Documentation

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

Chain of Custody Record

160705

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Loeb, Mark J	Carrier Tracking No(s):	COC No: 240-47069.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: mark.loeb@testamericainc.com		Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc.				Job #: 240-54357-1
Address: 5815 Middlebrook Pike,	Due Date Requested: 9/1/2015			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: RAAP	Project #: 24006283			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2SO3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - ph 4-5
Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (8290A, Dioxins/Furans,)/ 8290A, Dioxins/Furans,	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
PAD-1 (240-54357-1)	8/13/15	09:35 Eastern		Solid			X	1	RT: 0.5°C
PAD-2 (240-54357-2)	8/13/15	10:05 Eastern		Solid			X	1	CT: 0.5°C
PAD-3 (240-54357-3)	8/13/15	10:40 Eastern		Solid			X	1	No Custody seal
PAD-4 (240-54357-4)	8/13/15	10:55 Eastern		Solid			X	3	SCS7
PAD-5 (240-54357-5)	8/13/15	11:10 Eastern		Solid			X	1	1 Cooler, Fedex PO
PAD-6 (240-54357-6)	8/13/15	11:35 Eastern		Solid			X	1	#K#641912913 8198
PAD-7 (240-54357-7)	8/13/15	11:50 Eastern		Solid			X	1	KW 8/15/15
PAD-8 (240-54357-8)	8/13/15	12:10 Eastern		Solid			X	1	
PAD-XX (240-54357-10)	8/13/15	09:40 Eastern		Solid			X	1	
NB-1 (240-54357-11)	8/13/15	10:15 Eastern		Solid			X	1	
NB-2 (240-54357-12)	8/13/15	12:30 Eastern		Solid			X	1	

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:				
Relinquished by:	Date/Time: 8-1475-1638	Company	Received by:	Date/Time: 8/15/15 0912	Company TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

8/31/2015

TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Phone (330) 497-9396 Fax (330) 497-0772

HSH160405

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Loeb, Mark J	Carrier Tracking No(s):	COC No: 240-47069.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: mark.loeb@testamericainc.com		Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Analysis Requested		Job #: 240-54357-1
Address: 5815 Middlebrook Pike,	Due Date Requested: 9/1/2015			Preservation Codes:
City: Knoxville	TAT Requested (days):			A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2SO3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - ph 4-5; Z - other (specify)
State, Zip: TN, 37921	PO #:			
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	WO #:			Other:
Email:	Project #: 24006283			
Project Name: RAAP	SSOW#:			
Site:				

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (8290A, Dioxins/Furans,)/ 8290A, Dioxins/Furans,	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SB-1 (240-54357-13)	8/13/15	13:00 Eastern		Solid			X	1	
SB-2 (240-54357-14)	8/13/15	13:15 Eastern		Solid			X	1	
BERM-1 (240-54357-15)	8/13/15	09:00 Eastern		Solid			X	1	
POND-1 (240-54357-16)	8/13/15	09:20 Eastern		Solid			X	1	
EB (240-54357-17)	8/13/15	12:40 Eastern		Water			X	2	

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	8-14-15		[signature]	8/15/15 0912	TA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: 43411b0405

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	NA
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID : S037 Correction factor: 0.0	✓			☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____ ☐ **2c** Cooling initiated for recently collected samples, ice present.	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** See box 3A for pH Preservation ☐ **3b** Other:	
4. Were custody seals present/intact on cooler and/or containers?		✓		☑ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?	✓		✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number: _____			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	**Labeling Verified by:** **Date:**
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	**pH test strip lot number:**
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓	✓		☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓		☐ **19a** Other	

	Box 3A: pH Preservation	Box 9A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Quote #: 90315 PM Instructions: NA

Sample Receiving Associate: [signature] Date: 8-16-15

QA026R29.doc, 041115

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS


240-54357 Chain of Custody

1.8/C2.8 2.8/C3.8 1.2/C2.2

dcjn 8/10/15

Laboratory: Test America, 4101 Shuffel Drive NW, North Canton, OH, 44720 / Mark Loeb, Manager/1-330-966-9387

Client: Draper Aden Associates **Attn:** **Address:** **Phone:** **Fax:** **Fax:**	**Consultant:** Draper Aden Associates **Attn:** Janet C. Frazier **Address:** 2206 South Main Street, Blacksburg, Virginia 24060 **Phone:** (540) 552-0444 **Fax:** (540) 552-0291	**Sample Site:** RFAAP. Radford, Virginia **Location:** HWMU-13 (Open Burning Ground) **Event:** August 2015 - Annual Soil Monitoring **DAA JN:** B03204-215 **Lab JN:**	Project Specific (PS) or Batch (B) QC: Sample Collection for Project Complete? YES UPS: 12-237-301-01-9560-8075 Carrier: 12-237-301-01-9984-9469 Tracking Number: 12-237-301-01-9532-7280		

Box 1: Matrix
SW Surface Water; GW Groundwater; L Leachate; S Soil; T Trip Blank; E Equipment Blank; P Product; O Other

Box 2: Preservative
A HCL; B HNO_3; C H_2SO_4; D $Na_2S_2O_3$; E NaOH; F ZnAc; G Other (<4 deg C); H None

Box 3: Filtered/Unfiltered
F Filtered; U Unfiltered

Box 5: Sample Container Type
P Plastic; V VOA; AG Amber Glass; CG Clear Glass

Box 4: Sample Type
G Grab; C Composite

Invoice
Copy to Consultant: YES
Bill: CLIENT OTHER
Preserved and shipped on ice: YES

Box 4 - Sample Type							G	G	G	G				G	
Box 3 - Filtered/Unfiltered														U	
Required pH of Sample														<2	
Box 2 - Preservative							G	H	H	H				B	
Box 5 - Sample Container Type							1-4 oz CG	1-4 oz CG	1-4 oz CG	2-4 oz AG				1-500 ml P	
Sample ID	**Date: 2015**	**Time**	**Box 1: Matrix**	**Number of Bottles**			**Hexavalent Chromium 7196A/3060A**	**TPH-DRO 8015C**	**RCRA Metals 6010C/7471A**	**Dioxins/Furans 8290A**				**RCRA Metals 6010C / 7470A**	**DRY WEIGHT (aliquot from method container)**
PAD-1	8/13	0935	S	5			X	X	X	X					X
PAD-2		1005	S	4			X		X	X					X
PAD-3		1040	S	4			X		X	X					X
PAD-4		1055	S	5			X	X	X	X					X
PAD-4ms		1055	S	5			X	X	X	X					X
PAD-4msd		1055	S	5			X	X	X	X					X
PAD-5		1115	S	4			X		X	X					X
PAD-6		1135	S	4			X		X	X					X
PAD-7		1150	S	5			X	X	X	X					X
PAD-8		1210	S	4			X		X	X					X
PAD-X		1135	S	3			X	X	X						X
PAD-XX		0940	S	2						X					X
~~Equip Blank~~			E	1										X	not on this coc. JVR 8-10-2015

GENERAL NOTES:
1. Estimated results required.
2. Report results on a DRY WEIGHT BASIS.
3. VELAP required. Dioxin/Furans to TA Knoxville. All other methods TA North Canton
4. Report results in mg/kg except for dioxin.
5. VELAP Accreditation required.

use for MS / MSD...

PAD-XX used for dioxin blind field duplicate only

lients Special Instructions: Level 4 with edd.

Received by lab in Good Condition _____ Yes _____ No Custody Seal Intact _____ Yes _____ No Temperature upon arrival _____ Received on Ice _____ Yes _____ No

Describe problems, if any:

Sampler Name (Print): KEN COODINGTON	Date: 8/13/15	#1 Relinquished by (Signature):	Date: 8/13/15	#2 Relinquished by (Signature):	Date:	Sample Storage Time Requested:
Sampler Signature:	Time: 0630	Company Name: DAA	Time: 700	Company Name:	Time:	
Sampler Name (Print): Will Mason	Date: 8-13-15	#1 Received by (Signature):	Date: 8-14-15	#2 Received by (Signature):	Date:	30 DYS ORG/6 MTHS INORG
Sampler Signature:	Time: 0630	Company Name: TA	Time: 1000	Company Name:	Time:	

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8/31/2015

1/4 JVR 8/10/15

Laboratory: Test America, 4101 Shuffel Drive NW, North Canton, OH, 44720 / Mark Loeb, Manager/1-800-966-9387

8/10/15

Client: Draper Aden Associates **Attn:** **Address:** **Phone:** **Fax:** **Fax:**	**Consultant:** Draper Aden Associates **Attn:** Janet C. Frazier **Address:** 2206 South Main Street Blacksburg, Virginia 24060 **Phone:** (540) 552-0444 **Fax:** (540) 552-0291	**Sample Site:** RFAAP. Radford, Virginia **Location:** HWMU-13 (Open Burning Ground) **Event:** August 2015 - Annual Soil Monitoring **DAA JN:** B03204-215 **Lab JN:**	Project Specific (PS) or Batch (B) QC: Sample Collection for Project Complete? YES Carrier: Tracking Number:		

Box 1: Matrix
SW Surface Water; GW Groundwater; L Leachate; S Soil; T Trip Blank; E Equipment Blank; P Product; O Other

Box 2: Preservative
A HCL; B HNO_3; C H_2SO_4; D $Na_2S_2O_3$; E NaOH; F ZnAc; G Other (<6 deg C); H None

Box 3: Filtered/Unfiltered
F Filtered; U Unfiltered

Box 4: Sample Type
G Grab; C Composite

Box 5: Sample Container Type
P Plastic; V VOA; AG Amber Glass; CG Clear Glass

Invoice
Copy to Consultant: YES
Bill: CLIENT OTHER
Preserved and shipped on ice: YES

Box 4 - Sample Type								G	G				
Box 3 - Filtered/Unfiltered													
Required pH of Sample													
Box 2 - Preservative								H	H				
Box 5 - Sample Container Type								1-4 oz CG	2-4 oz AG				
Sample ID	**Date: 2015**	**Time**	**Box 1: Matrix**	**Number of Bottles**				**RCRA Metals 6010C**	**Dioxins/Furans 8290A**				**DRY WEIGHT (aliquot from method container)**
NB-1	8/13	1015	S	3				X	X				X
NB-2	"	1230	S	3				X	X				X
SB-1	"	1300	S	3				X	X				X
SB-2	"	1315	S	3				X	X				X
BERM-1	"	0900	S	3				X	X				X
POND-1	"	0920	S	3				X	X				X

GENERAL NOTES:
1. Estimated results required.
2. Report results on a DRY WEIGHT BASIS.
3. VELAP required. Dioxin/Furans to TA Knoxville, all other methods TA North Canton.
4. Report results in mg/kg except for dioxins.

Clients Special Instructions: level 4 with edd.

Received by lab in Good Condition _____ Yes _____ No Custody Seal Intact _____ Yes _____ No Temperature upon arrival _____ Received on Ice _____ Yes _____ No
Describe problems, if any:

Sampler Name (Print): KEN GODDINGTON	Date: 8/13/15	#1 Relinquished by (Signature):	Date: 8/13/15	#2 Relinquished by (Signature):	Date:	Sample Storage Time Requested:
Sampler Signature:	Time: 0630	Company Name: DAA	Time: 1706	Company Name:	Time:	
Sampler Name (Print): Will Mason	Date: 8/13/15	#1 Received by (Signature):	Date: 8/14-15	#2 Received by (Signature):	Date:	30 DYS ORG/6 MTHS INORG
Sampler Signature:	Time: 0630	Company Name: TA	Time: 1000	Company Name:	Time:	

8/31/2015

Y/A

Laboratory: Test America, 4101 Shuffel Drive NW, North Canton, OH, 44720 / Mark Loeb, Manager/1-800-966-9387

dlc 8/14/15

Client: Draper Aden Associates **Attn:** **Address:** **Phone:** **Fax:** **Fax:**	**Consultant:** Draper Aden Associates **Attn:** Janet C. Frazier **Address:** 2206 South Main Street Blacksburg, Virginia 24060 **Phone:** (540) 552-0444 **Fax:** (540) 552-0291	**Sample Site:** RFAAP. Radford, Virginia **Location:** HWMU-13 (Open Burning Ground) **Event:** August 2015 - Annual Soil Monitoring **DAA JN:** B03204-215 **Lab JN:**	**Project Specific (PS) or Batch (B) QC:** (B) **Sample Collection for Project Complete?** YES **Carrier:** **Tracking Number:**		

Box 1: Matrix
SW Surface Water; GW Groundwater; L Leachate; S Soil; T Trip Blank; E Equipment Blank; P Product; O Other

Box 2: Preservative
A HCL; B HNO_3; C H_2SO_4; D $Na_2S_2O_3$; E NaOH; F ZnAc; G Other (<6 deg C); H None

Box 3: Filtered/Unfiltered
F Filtered; U Unfiltered

Box 4: Sample Type
G Grab; C Composite

Box 5: Sample Container Type
P Plastic; V VOA; AG Amber Glass; CG Clear Glass

Invoice
Copy to Consultant: YES
Bill: CLIENT OTHER
Preserved and shipped on ice: YES

Box 4 - Sample Type	G	G	G							
Box 3 - Filtered/Unfiltered	U	U	U							
Required pH of Sample										
Box 2 - Preservative			B							
Box 5 - Sample Container Type	2-1L AG	4-1L AG	1-500 ML P							

Sample ID	Date: 2015	Time	Box 1: Matrix	Number of Bottles	TPH-DRO 8015C	Dioxins/Furans 8290A	RCRA Metals 6010C/7470 (X)					
~~EQBLK~~	8/13	0715	W	7	X	X	~~X~~					
~~EB~~	~~8/13~~	~~1315~~					X					
EB		1240										
8-13-15		8-13-15										

GENERAL NOTES:

1. Estimated results required. VELAP required. Dioxin/Furans to TA Knoxville, all other methods TA North Canton.

(X) See attached analyte list. dlc 8/13/15

Pre-sampling Equipment Blank

Clients Special Instructions: level 4 with edd.

Received by lab in Good Condition _____ Yes _____ No Custody Seal Intact _____ Yes _____ No Temperature upon arrival _____ Received on Ice _____ Yes _____ No

Describe problems, if any:

Sampler Name (Print): KEN CODDINGTON	Date: 8/13/15	#1 Relinquished by (Signature):	Date: 8/13/15	#2 Relinquished by (Signature):	Date:	Sample Storage Time Requested:
Sampler Signature:	Time: 0630	Company Name: DAA	Time: 1700	Company Name:	Time:	
Sampler Name (Print): Will Mason-Dees	Date: 8/13/15	#1 Received by (Signature):	Date: 8-14-15	#2 Received by (Signature):	Date:	30 DYS ORG/6 MTHS INORG
Sampler Signature:	Time: 0630	Company Name: TA	Time: 1000	Company Name:	Time:	

(X) OK to report w/ annual soil event. Separate data package not required. dlc 8/13/15

1/2

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8/31/2015

ANALYTICAL METHOD: 6010C/7471A/7470A
TYPE METHOD: Inorganics

Analyte List for: All PAD Samples and ~~Equipment Blank~~ Only

No	Constituent	CASRN	SW-846 Method
1	Arsenic	7440-38-2	6010C
2	Barium	7440-39-3	6010C
3	Cadmium	7440-43-9	6010C
4	Chromium, Total	7740-47-3	6010C
5	Lead	7439-92-1	6010C
6	Silver	7440-22-4	6010C
7	Selenium	7782-49-2	6010C
8	Mercury	7439-97-6	7471A (soil) ~~7470A (water – Equipment Blank)~~

Analyte List for: All PAD Samples

Constituent	CASRN	SW-846 Method
Chromium, Hexavalent	18540-29-9	7196A

Analyte List for SB-1, SB-2, NB-1, NB-2, Berm-1 and Pond-1 ONLY

Method SW 846-6010C

No.	ANALYTE	CAS RN
1.	Arsenic	7440-38-2
2.	Barium	7440-39-3
3.	Cadmium	7440-43-9
4.	Chromium	7440-47-3
5.	Lead	7440-92-1
6.	Selenium	7782-49-2

ANALYTICAL METHOD: 8015C/3540C
TYPE METHOD: TPH- DRO

Analyte List for: PAD-1, PAD-4 and PAD-7, PAD-X

Constituent	CASRN	SW-846 Method
Total Petroleum Hydrocarbons - DRO		8015C

EQUIPMENT BLANK ONLY- WATER -

Open Burning Ground (OBG) – Unit 13
Radford Army Ammunition Plant
Annual Soil Monitoring Event

Based on revised permit effective June 12, 2014

TestAmerica – N. Canton

ANALYTICAL METHOD: 6010C/7470A
TYPE METHOD: Inorganics

No	Constituent	CASRN	SW-846 Method
1	Arsenic	7440-38-2	6010C
2	Barium	7440-39-3	6010C
3	Cadmium	7440-43-9	6010C
4	Chromium, Total	7740-47-3	6010C
5	Lead	7439-92-1	6010C
6	Silver	7440-22-4	6010C
7	Selenium	7782-49-2	6010C
8	Mercury	7439-97-6	~~7471A (soil)~~ 7470A (water-Equipment Blank)

VEAP ✓ UW

VELAP ✓ AT 8/13/15

2/2

TestAmerica Canton Sample Receipt Form/Narrative Login # : 43457
Canton Facility

Client Draper Aden Site Name _____ Cooler unpacked by:

Cooler Received on 8-14-15 Opened on 8-14-15

FedEx: 1st Grd Exp (UPS) FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box Client Cooler Box (Other) _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt
   IR GUN# A (CF +1.0 °C) Observed Cooler Temp. ~~1.8~~ °C Corrected Cooler Temp. ~~2.8~~ °C
   ~~IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~
   ~~IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~
   IR GUN# 8 (CF -1.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
   ☑ See Multiple Cooler Form
2. Were custody seals on the outside of the cooler(s)? If Yes Quantity 6 (Yes) No
   -Were custody seals on the outside of the cooler(s) signed & dated? (Yes) No NA
   -Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes (No)
3. Shippers' packing slip attached to the cooler(s)? (Yes) No
4. Did custody papers accompany the sample(s)? (Yes) No
5. Were the custody papers relinquished & signed in the appropriate place? (Yes) No
6. Was/were the person(s) who collected the samples clearly identified on the COC? (Yes) No
7. Did all bottles arrive in good condition (Unbroken)? (Yes) No
8. Could all bottle labels be reconciled with the COC? (Yes) No
9. Were correct bottle(s) used for the test(s) indicated? (Yes) No
10. Sufficient quantity received to perform indicated analyses? (Yes) No
11. Were sample(s) at the correct pH upon receipt? Yes No (NA) pH Strip Lot# HC432654
12. Were VOAs on the COC? Yes (No)
13. Were air bubbles >6 mm in any VOA vials? Yes No (NA)
14. Was a trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes (No)

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other
Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

TestAmerica Multiple Cooler Receipt Form/Narrative
Canton Facility

Login # : 54358

Cooler #	IR Gun #	Observed Temp °C	Corrected Temp °C	Coolant
Client	A	1.8	2.8	Ice
↓	↓	2.8	3.8	↓
↓	↓	1.2	2.2	↓

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Canton
4101 Shuffel Street NW
North Canton, OH 44720
Tel: (330)497-9396

TestAmerica Job ID: 240-55863-1
Client Project/Site: RFAAP - Radford, Virginia

For:
Draper Aden Associates, Inc.
2206 South Main street
Blacksburg, Virginia 24060

Attn: Janet Frazier

Authorized for release by:
10/1/2015 5:01:09 PM

Mark Loeb, Project Manager II
(330)966-9387
mark.loeb@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Qualifiers

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 240-55863-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Draper Aden Associates, Inc.

Project: RFAAP - Radford, Virginia

Report Number: 240-55863-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 9/26/2015 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.5º C.

TOTAL METALS (ICP)

Samples PAD-6 (240-55863-1) and DUP (240-55863-2) were analyzed for total metals (ICP) in accordance with EPA SW-846 Method 6010B. The samples were prepared on 09/28/2015 and analyzed on 09/30/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS

Samples PAD-6 (240-55863-1) and DUP (240-55863-2) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 09/29/2015.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: Draper Aden Associates, Inc.
Project/Site: RFAAP - Radford, Virginia

TestAmerica Job ID: 240-55863-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL CAN
Moisture	Percent Moisture	EPA	TAL CAN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: Draper Aden Associates, Inc.
Project/Site: RFAAP - Radford, Virginia

TestAmerica Job ID: 240-55863-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-55863-1	PAD-6	Solid	09/25/15 08:00	09/26/15 09:00
240-55863-2	DUP	Solid	09/25/15 08:10	09/26/15 09:00

Detection Summary

Client: Draper Aden Associates, Inc.
Project/Site: RFAAP - Radford, Virginia

TestAmerica Job ID: 240-55863-1

Client Sample ID: PAD-6 — Lab Sample ID: 240-55863-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	620		0.30	0.20	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: DUP — Lab Sample ID: 240-55863-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	510		0.27	0.18	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Draper Aden Associates, Inc.
Project/Site: RFAAP - Radford, Virginia

TestAmerica Job ID: 240-55863-1

Client Sample ID: PAD-6
Date Collected: 09/25/15 08:00
Date Received: 09/26/15 09:00

Lab Sample ID: 240-55863-1
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	86		0.10	0.10	%			09/29/15 15:06	1
Percent Moisture	14		0.10	0.10	%			09/29/15 15:06	1

Client Sample Results

Client: Draper Aden Associates, Inc.
Project/Site: RFAAP - Radford, Virginia

TestAmerica Job ID: 240-55863-1

Client Sample ID: PAD-6
Date Collected: 09/25/15 08:00
Date Received: 09/26/15 09:00

Lab Sample ID: 240-55863-1
Matrix: Solid
Percent Solids: 85.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	620		0.30	0.20	mg/Kg	☼	09/28/15 10:20	09/30/15 15:10	1

Client: Draper Aden Associates, Inc.
Project/Site: RFAAP - Radford, Virginia

TestAmerica Job ID: 240-55863-1

Client Sample ID: DUP
Date Collected: 09/25/15 08:10
Date Received: 09/26/15 09:00

Lab Sample ID: 240-55863-2
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	85		0.10	0.10	%			09/29/15 15:06	1
Percent Moisture	15		0.10	0.10	%			09/29/15 15:06	1

Client Sample Results

Client: Draper Aden Associates, Inc.
Project/Site: RFAAP - Radford, Virginia

TestAmerica Job ID: 240-55863-1

Client Sample ID: DUP
Date Collected: 09/25/15 08:10
Date Received: 09/26/15 09:00

Lab Sample ID: 240-55863-2
Matrix: Solid
Percent Solids: 85.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	510		0.27	0.18	mg/Kg	☼	09/28/15 10:20	09/30/15 15:14	1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 240-199304/1-A
Matrix: Solid
Analysis Batch: 199675

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 199304

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.30	U	0.30	0.20	mg/Kg		09/28/15 10:20	09/29/15 14:18	1

Lab Sample ID: LCS 240-199304/2-A
Matrix: Solid
Analysis Batch: 199675

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 199304

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			50.0	46.7		mg/Kg		93	80 - 120		

Method: Moisture - Percent Moisture

Lab Sample ID: 240-55863-1 DU
Matrix: Solid
Analysis Batch: 199593

Client Sample ID: PAD-6
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Solids	86			88		%				2	20
Percent Moisture	14			12		%				15	20

QC Association Summary

Client: Draper Aden Associates, Inc.
Project/Site: RFAAP - Radford, Virginia

TestAmerica Job ID: 240-55863-1

Metals

Prep Batch: 199304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-55863-1	PAD-6	Total/NA	Solid	3050B	
240-55863-2	DUP	Total/NA	Solid	3050B	
LCS 240-199304/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 240-199304/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 199675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 240-199304/2-A	Lab Control Sample	Total/NA	Solid	6010B	199304
MB 240-199304/1-A	Method Blank	Total/NA	Solid	6010B	199304

Analysis Batch: 199876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-55863-1	PAD-6	Total/NA	Solid	6010B	199304
240-55863-2	DUP	Total/NA	Solid	6010B	199304

General Chemistry

Analysis Batch: 199593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-55863-1	PAD-6	Total/NA	Solid	Moisture	
240-55863-1 DU	PAD-6	Total/NA	Solid	Moisture	
240-55863-2	DUP	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Draper Aden Associates, Inc.
Project/Site: RFAAP - Radford, Virginia

TestAmerica Job ID: 240-55863-1

Client Sample ID: PAD-6
Date Collected: 09/25/15 08:00
Date Received: 09/26/15 09:00

Lab Sample ID: 240-55863-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	199593	09/29/15 15:06	LCN	TAL CAN

Client Sample ID: PAD-6
Date Collected: 09/25/15 08:00
Date Received: 09/26/15 09:00

Lab Sample ID: 240-55863-1
Matrix: Solid
Percent Solids: 85.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			199304	09/28/15 10:20	DEE	TAL CAN
Total/NA	Analysis	6010B		1	199876	09/30/15 15:10	WAL	TAL CAN

Client Sample ID: DUP
Date Collected: 09/25/15 08:10
Date Received: 09/26/15 09:00

Lab Sample ID: 240-55863-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	199593	09/29/15 15:06	LCN	TAL CAN

Client Sample ID: DUP
Date Collected: 09/25/15 08:10
Date Received: 09/26/15 09:00

Lab Sample ID: 240-55863-2
Matrix: Solid
Percent Solids: 85.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			199304	09/28/15 10:20	DEE	TAL CAN
Total/NA	Analysis	6010B		1	199876	09/30/15 15:14	WAL	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Certification Summary

Client: Draper Aden Associates, Inc.
Project/Site: RFAAP - Radford, Virginia

TestAmerica Job ID: 240-55863-1

Laboratory: TestAmerica Canton

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Virginia	NELAP	3	460175	09-14-16

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

TestAmerica Laboratories, Inc.

CHAIN OF CUSTODY
AND
RECEIVING DOCUMENTS

240-55863 Chain of Custody

4101 Shuffel Street, N.W. North Canton, OH 44720 **tel** 330.497.9396 **fax** 330.497.0772 **www.testamericainc.com**

S.O/C1.3

OK JLK 9-22-2015

Laboratory: Test America, 4101 Shuffel Drive NW, North Canton, OH, 44720 / Mark Loeb, Manager/1-330-966-9387

Client:	Draper Aden Associates	Consultant:	Draper Aden Associates	Sample Site:	RFAAP. Radford, Virginia
Attn:		Attn:	Janet C. Frazier	Location:	HWMU-13 (Open Burning Ground)
Address:		Address:	2206 South Main Street, Blacksburg, Virginia 24060	Event:	Sept 2015 - Verification Soil Monitoring Event
Phone:		Phone:	(540) 552-0444	DAA JN:	B03204-215
Fax:		Fax:	(540) 552-0291	Lab JN:	

Project Specific (PS) or Batch (B) QC:
Sample Collection for Project Complete? YES
Carrier: UPS: 1Z237-301-44-9705-2733
Tracking Number:

Box 1: Matrix
SW Surface Water; GW Groundwater; L Leachate; S Soil; T Trip Blank; E Equipment Blank; P Product; O Other

Box 2: Preservative
A HCL; B HNO_3; C H_2SO_4; D $Na_2S_2O_3$; E NaOH; F ZnAc; G Other (<4 deg C); H None

Box 3: Filtered/Unfiltered
F Filtered; U Unfiltered

Box 5: Sample Container Type
P Plastic; V VOA; AG Amber Glass; CG Clear Glass

Box 4: Sample Type
G Grab; C Composite

Invoice
Copy to Consultant: YES
Bill: CLIENT OTHER
Preserved and shipped on ice: YES

Box 4 - Sample Type					G											
Box 3 - Filtered/Unfiltered																
Required pH of Sample																
Box 2 - Preservative					H											
Box 5 - Sample Container Type					1-4oz CG											
Sample ID	Date: 2015	Time	Box 1: Matrix	Number of Bottles	Lead Only - 6010C											
PAD-6	9/25	0800	S	1	X											
DUP	9/25	0810	S	1	X											

GENERAL NOTES:
1. Estimated results required.
2. Report results on a DRY WEIGHT BASIS.
3. VELAP required. .

Quick turn around, if possible - 3-4 days. JLK 9/22/2015

Clients Special Instructions: Level 4 with edd.

Received by lab in Good Condition _____ Yes _____ No Custody Seal Intact _____ Yes _____ No Temperature upon arrival _____ Received on Ice _____ Yes _____ No

Describe problems, if any:

Sampler Name (Print):	Tyler Emery	Date: 9/25/15	#1 Relinquished by (Signature):		Date: 9/25/15	#2 Relinquished by (Signature):	Date:	Sample Storage Time Requested:
Sampler Signature:		Time: 0700	Company Name:	DAA	Time: 1200	Company Name:	Time:	
Sampler Name (Print):	Kevin Coddington	Date: 9/25/15	#1 Received by (Signature):		Date: 9/26/15	#2 Received by (Signature):	Date:	30 DYS ORG/6 MTHS INORG
Sampler Signature:		Time: 0700	Company Name:	TANC	Time: 0900	Company Name:	Time:	

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10/1/2015

OK JLK 9-22-2015

TestAmerica Canton Sample Receipt Form/Narrative Login # : 555863
Canton Facility

Client Draper Aden Site Name _____ Cooler unpacked by: A. Jewel

Cooler Received on 9/26/15 Opened on 9/26/15

FedEx: 1st Grd Exp (UPS) FAS Stetson Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # _____ Foam Box (Client Cooler) Box Other _____

Packing material used: Bubble Wrap Foam (Plastic Bag) None Other _____

COOLANT: (Wet Ice) Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt

IR GUN# A (CF +1.0 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C

~~IR GUN# 4 (CF +0.5 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~ ☐ See Multiple Cooler Form

~~IR GUN# 5 (CF +0.4 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C~~

IR GUN# 8 (CF -1.5 °C) Observed Cooler Temp. 3.0 °C Corrected Cooler Temp. 1.5 °C

2.	Were custody seals on the outside of the cooler(s)? If Yes Quantity 2	(Yes) No
	-Were custody seals on the outside of the cooler(s) signed & dated?	(Yes) No NA
	-Were custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes (No)
3.	Shippers' packing slip attached to the cooler(s)?	(Yes) No
4.	Did custody papers accompany the sample(s)?	(Yes) No
5.	Were the custody papers relinquished & signed in the appropriate place?	(Yes) No
6.	Was/were the person(s) who collected the samples clearly identified on the COC?	(Yes) No
7.	Did all bottles arrive in good condition (Unbroken)?	(Yes) No
8.	Could all bottle labels be reconciled with the COC?	(Yes) No
9.	Were correct bottle(s) used for the test(s) indicated?	(Yes) No
10.	Sufficient quantity received to perform indicated analyses?	(Yes) No
11.	Were sample(s) at the correct pH upon receipt?	Yes No (NA) pH Strip Lot# HC554612
12.	Were VOAs on the COC?	Yes (No)
13.	Were air bubbles >6 mm in any VOA vials?	Yes No (NA)
14.	Was a trip blank present in the cooler(s)? Trip Blank Lot # _____	Yes (No)

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

14. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 Event Date: August 2015 (Third Quarter 2015)

Analyte/ Sample ID	Laboratory Result	Q	Validated Result Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
1,1-Dichloroethene										
Trip Blank	0.8	U	U	5	0.8	0.005	1100	8260C	ug/l	Analyte not detected at or above the DL or QL.
PAD-8	0.001	U	U	0.005	0.001	0.005	1100	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.001	U	U	0.005	0.001	0.005	1100	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.0009	U	U	0.004	0.0009	0.005	1100	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.0009	U	U	0.004	0.0009	0.005	1100	8260C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-1	0.0009	U	U	0.004	0.0009	0.005	1100	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.0009	U	U	0.005	0.0009	0.005	1100	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.0009	U	U	0.004	0.0009	0.005	1100	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.0009	U	U	0.004	0.0009	0.005	1100	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.0009	U	U	0.005	0.0009	0.005	1100	8260C	mg/kg	Analyte not detected at or above the DL or QL.
1,2-Dichloroethane										
Trip Blank	1	U	U	5	1	0.005	2.2	8260C	ug/l	Analyte not detected at or above the DL or QL.
PAD-8	0.001	U	U	0.005	0.001	0.005	2.2	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.001	U	U	0.005	0.001	0.005	2.2	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.0009	U	U	0.004	0.0009	0.005	2.2	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.0009	U	U	0.005	0.0009	0.005	2.2	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.0009	U	U	0.005	0.0009	0.005	2.2	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.0009	U	U	0.004	0.0009	0.005	2.2	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.0009	U	U	0.004	0.0009	0.005	2.2	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.0009	U	U	0.004	0.0009	0.005	2.2	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.0009	U	U	0.004	0.0009	0.005	2.2	8260C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
1,3,5-Trinitrobenzene										
PAD-2	0.259	U	U	0.259	0.104	0.25	27000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.255	U	U	0.255	0.102	0.25	27000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.255	U	U	0.255	0.102	0.25	27000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.254	U	U	0.254	0.101	0.25	27000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.251	U	U	0.251	0.101	0.25	27000	8330B	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-6	0.25	U	U	0.25	0.0998	0.25	27000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.25	U	U	0.243	0.0973	0.25	27000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.249	U	U	0.249	0.0977	0.25	27000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.246	U	U	0.247	0.0984	0.25	27000	8330B	mg/kg	Analyte not detected at or above the DL or QL.

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 Event Date: August 2015 (Third Quarter 2015)

Analyte/ Sample ID	Laboratory Result	Q	Validated Result Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
1,3-Dinitrobenzene										
PAD-2	0.259	U	U	0.259	0.104	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.255	U	U	0.255	0.102	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.255	U	U	0.255	0.102	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.254	U	U	0.254	0.101	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.251	U	U	0.251	0.101	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-6	0.25	U	U	0.25	0.0998	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.25	U	U	0.243	0.0973	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.249	U	U	0.249	0.0977	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.246	U	U	0.247	0.0984	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
2,4,6-Trinitrotoluene										
SB-2	2.5		2.5	0.252	0.101	0.25	79	8330B	mg/kg	No action taken.
PAD-2	0.259	U	U	0.259	0.104	0.25	79	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.255	U	U	0.255	0.102	0.25	79	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.255	U	U	0.255	0.102	0.25	79	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.254	U	U	0.254	0.102	0.25	79	8330B	mg/kg	Analyte not detected at or above the DL or QL.
NB-1	0.252	U	U	0.252	0.101	0.25	79	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.251	U	U	0.251	0.101	0.25	79	8330B	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
POND-1	0.25	U	U	0.25	0.0999	0.25	79	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.25	U	U	0.25	0.0999	0.25	79	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.25	U	U	0.25	0.0998	0.25	79	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.249	U	U	0.249	0.0995	0.25	79	8330B	mg/kg	Analyte not detected at or above the DL or QL.
SB-1	0.248	U	U	0.248	0.099	0.25	79	8330B	mg/kg	Analyte not detected at or above the DL or QL.
NB-2	0.247	U	U	0.247	0.0987	0.25	79	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.246	U	U	0.246	0.0984	0.25	79	8330B	mg/kg	Analyte not detected at or above the DL or QL.
BERM-1	0.24	U	U	0.24	0.096	0.25	79	8330B	mg/kg	Analyte not detected at or above the DL or QL.
2,4-Dichlorophenol										
PAD-6	0.092	U	U	0.18	0.092	0.33	1800	8270D	mg/kg	Analyte not detected. Analyzed in dilution (1:5). QL/DL adjusted
PAD-3	0.02	U	U	0.04	0.02	0.33	1800	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.018	U	U	0.037	0.018	0.33	1800	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.018	U	U	0.036	0.018	0.33	1800	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.018	U	U	0.037	0.018	0.33	1800	8270D	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-5	0.018	U	U	0.035	0.018	0.33	1800	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.018	U	U	0.035	0.018	0.33	1800	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.018	U	U	0.036	0.018	0.33	1800	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.017	U	U	0.034	0.017	0.33	1800	8270D	mg/kg	Analyte not detected at or above the DL or QL.

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 Event Date: August 2015 (Third Quarter 2015)

Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
2,4-Dinitrotoluene											
SB-2	2.34		2.34		0.252	0.101	0.25	5.5	8330B	mg/kg	No action taken.
NB-2	2.07		2.07		0.247	0.0989	0.25	5.5	8330B	mg/kg	No action taken.
PAD-6	0.313		0.313		0.25	0.0998	0.25	5.5	8330B	mg/kg	No action taken.
PAD-2	0.259	U	U		0.259	0.104	0.25	5.5	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.255	U	U		0.255	0.102	0.25	5.5	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.255	U	U		0.248	0.099	0.25	5.5	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.254	U	U		0.254	0.0997	0.25	5.5	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.251	U	U		0.251	0.101	0.25	5.5	8330B	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
POND-1	0.25	U	U		0.25	0.0999	0.25	5.5	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.25	U	U		0.243	0.0973	0.25	5.5	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.249	U	U		0.249	0.0977	0.25	5.5	8330B	mg/kg	Analyte not detected at or above the DL or QL.
SB-1	0.248	U	U		0.248	0.099	0.25	5.5	8330B	mg/kg	Analyte not detected at or above the DL or QL.
BERM-1	0.24	U	U		0.24	0.096	0.25	5.5	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.205	J	0.205	J	0.252	0.0984	0.25	5.5	8330B	mg/kg	Result < QL.
NB-1	0.125	J	0.125	J	0.252	0.101	0.25	5.5	8330B	mg/kg	Result < QL.
2,6-Dinitrotoluene											
PAD-2	0.259	U	U		0.259	0.104	0.25	1.2	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.255	U	U		0.255	0.102	0.25	1.2	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.255	U	U		0.255	0.102	0.25	1.2	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.254	U	U		0.254	0.101	0.25	1.2	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.251	U	U		0.251	0.101	0.25	1.2	8330B	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-7	0.25	U	U		0.243	0.0973	0.25	1.2	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.25	U	U		0.25	0.0998	0.25	1.2	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.249	U	U		0.249	0.0977	0.25	1.2	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.246	U	U		0.247	0.0984	0.25	1.2	8330B	mg/kg	Analyte not detected at or above the DL or QL.

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 Event Date: August 2015 (Third Quarter 2015)

Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
2-Amino-4,6-Dinitrotoluene											
PAD-8	0.255	U	U	J	0.255	0.102	0.25	2000	8330B	mg/kg	Analyte not detected at or above the DL or QL. MS recovered low (75%).
PAD-5	0.255	U	U	J	0.255	0.102	0.25	2000	8330B	mg/kg	Analyte not detected at or above the DL or QL. MS recovered low (75%).
PAD-1	0.254	U	U	J	0.254	0.101	0.25	2000	8330B	mg/kg	Analyte not detected at or above the DL or QL. MS recovered low (75%).
NB-1	0.252	U	U	J	0.252	0.101	0.25	2000	8330B	mg/kg	Analyte not detected at or above the DL or QL. MS recovered low (75%).
SB-2	0.252	U	U	J	0.252	0.101	0.25	2000	8330B	mg/kg	Analyte not detected at or above the DL or QL. MS recovered low (75%).
PAD-X	0.251	U	U	J	0.251	0.101	0.25	2000	8330B	mg/kg	Analyte not detected at or above the DL or QL. MS recovered low (75%). Field duplicate for PAD-7.
PAD-6	0.25	U	U	J	0.25	0.0998	0.25	2000	8330B	mg/kg	Analyte not detected at or above the DL or QL. MS recovered low (75%).
PAD-7	0.25	U	U	J	0.243	0.0973	0.25	2000	8330B	mg/kg	Analyte not detected at or above the DL or QL. MS recovered low (75%).
POND-1	0.25	U	U	J	0.25	0.0999	0.25	2000	8330B	mg/kg	Analyte not detected at or above the DL or QL. MS recovered low (75%).
PAD-3	0.249	U	U	J	0.249	0.0977	0.25	2000	8330B	mg/kg	Analyte not detected at or above the DL or QL. MS recovered low (75%).
SB-1	0.248	U	U	J	0.248	0.099	0.25	2000	8330B	mg/kg	Analyte not detected at or above the DL or QL. MS recovered low (75%).
NB-2	0.247	U	U	J	0.247	0.0989	0.25	2000	8330B	mg/kg	Analyte not detected at or above the DL or QL. MS recovered low (75%).
PAD-4	0.246	U	U	J	0.247	0.0984	0.25	2000	8330B	mg/kg	Analyte not detected at or above the DL or QL. MS recovered low (75%).
BERM-1	0.24	U	U	J	0.24	0.096	0.25	2000	8330B	mg/kg	Analyte not detected at or above the DL or QL. MS recovered low (75%).
PAD-2	0.14	J	0.14	J	0.259	0.104	0.25	2000	8330B	mg/kg	Result < QL. MS recovered low (75%).
2-Chlorophenol											
PAD-6	0.092	U	U		0.18	0.092	0.33	5100	8270D	mg/kg	Analyte not detected. Analyzed in dilution (1:5). QL/DL adjusted.
PAD-3	0.02	U	U		0.04	0.02	0.33	5100	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.018	U	U		0.036	0.018	0.33	5100	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.018	U	U		0.035	0.018	0.33	5100	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.018	U	U		0.037	0.018	0.33	5100	8270D	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-4	0.018	U	U		0.037	0.018	0.33	5100	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.018	U	U		0.035	0.018	0.33	5100	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.018	U	U		0.036	0.018	0.33	5100	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.017	U	U		0.034	0.017	0.33	5100	8270D	mg/kg	Analyte not detected at or above the DL or QL.
2-Nitrotoluene											
PAD-2	0.259	U	U		0.259	0.104	0.25	13	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.255	U	U		0.255	0.102	0.25	13	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.255	U	U		0.255	0.102	0.25	13	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.254	U	U		0.254	0.101	0.25	13	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.251	U	U		0.251	0.101	0.25	13	8330B	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-6	0.25	U	U		0.25	0.0998	0.25	13	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.25	U	U		0.243	0.0973	0.25	13	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.249	U	U		0.249	0.0977	0.25	13	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.246	U	U		0.247	0.0984	0.25	13	8330B	mg/kg	Analyte not detected at or above the DL or QL.

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 Event Date: August 2015 (Third Quarter 2015)

Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
3,3'-Dimethylbenzidine											
PAD-6	2.8	U	U	JA	5.5	2.8	1.6	0.16	8270D	mg/kg	Analyte not detected at or above the DL or QL. MS/MSD did not recover. Analyzed in dilution (1:5). QL/DL adjusted
PAD-3	0.61	U	U	JA	1.2	0.61	1.6	0.16	8270D	mg/kg	Analyte not detected at or above the DL or QL. MS/MSD did not recover.
PAD-X	0.55	U	U	JA	1.1	0.55	1.6	0.16	8270D	mg/kg	Analyte not detected at or above the DL or QL. MS/MSD did not recover. Field duplicate for PAD-7.
PAD-4	0.55	U	U	JA	1.1	0.55	1.6	0.16	8270D	mg/kg	Analyte not detected at or above the DL or QL. MS/MSD did not recover.
PAD-2	0.54	U	U	JA	1.1	0.54	1.6	0.16	8270D	mg/kg	Analyte not detected at or above the DL or QL. MS/MSD did not recover.
PAD-7	0.54	U	U	JA	1.1	0.54	1.6	0.16	8270D	mg/kg	Analyte not detected at or above the DL or QL. MS/MSD did not recover.
PAD-5	0.53	U	U	JA	1.1	0.53	1.6	0.16	8270D	mg/kg	Analyte not detected at or above the DL or QL. MS/MSD did not recover.
PAD-8	0.53	U	U	JA	1.1	0.53	1.6	0.16	8270D	mg/kg	Analyte not detected at or above the DL or QL. MS/MSD did not recover.
PAD-1	0.51	U	U	JA	1	0.51	1.6	0.16	8270D	mg/kg	Analyte not detected at or above the DL or QL. MS/MSD did not recover.
3-Methylphenol											
PAD-6	0.092	U	U		0.18	0.18	0.33	31000	8270D	mg/kg	Analyte not detected at or above the DL or QL. Analyzed in dilution (1:5). QL/DL adjusted3-Methylphenol and 4-Methylphenol cannot be resolved. The result represents the total of both compounds.
PAD-3	0.02	U	U		0.04	0.17	0.33	31000	8270D	mg/kg	Analyte not detected at or above the DL or QL. 3-Methylphenol and 4-Methylphenol cannot be resolved. The result represents the total of both compounds.
PAD-7	0.018	U	U		0.036	0.017	0.33	31000	8270D	mg/kg	Analyte not detected at or above the DL or QL. 3-Methylphenol and 4-Methylphenol cannot be resolved. The result represents the total of both compounds.
PAD-2	0.018	U	U		0.036	0.017	0.33	31000	8270D	mg/kg	Analyte not detected at or above the DL or QL. 3-Methylphenol and 4-Methylphenol cannot be resolved. The result represents the total of both compounds.
PAD-X	0.018	U	U		0.037	0.018	0.33	31000	8270D	mg/kg	Analyte not detected at or above the DL or QL. 3-Methylphenol and 4-Methylphenol cannot be resolved. The result represents the total of both compounds. Field duplicate for PAD-7.
PAD-4	0.018	U	U		0.037	0.092	0.33	31000	8270D	mg/kg	Analyte not detected at or above the DL or QL. 3-Methylphenol and 4-Methylphenol cannot be resolved. The result represents the total of both compounds.
PAD-8	0.018	U	U		0.035	0.017	0.33	31000	8270D	mg/kg	Analyte not detected at or above the DL or QL. 3-Methylphenol and 4-Methylphenol cannot be resolved. The result represents the total of both compounds.
PAD-5	0.018	U	U		0.035	0.017	0.33	31000	8270D	mg/kg	Analyte not detected at or above the DL or QL. 3-Methylphenol and 4-Methylphenol cannot be resolved. The result represents the total of both compounds.
PAD-1	0.017	U	U		0.034	0.017	0.33	31000	8270D	mg/kg	Analyte not detected at or above the DL or QL. 3-Methylphenol and 4-Methylphenol cannot be resolved. The result represents the total of both compounds.

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 Event Date: August 2015 (Third Quarter 2015)

Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
3-Nitrotoluene											
PAD-2	0.259	U	U		0.259	0.104	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.255	U	U		0.255	0.102	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.255	U	U		0.255	0.102	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.254	U	U		0.254	0.101	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.251	U	U		0.251	0.101	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-7	0.25	U	U		0.243	0.0973	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.25	U	U		0.25	0.0998	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.249	U	U		0.249	0.0977	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.246	U	U		0.247	0.0984	0.25	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
4-Amino-2,6-Dinitrotoluene											
PAD-8	0.255	U	U		0.255	0.102	0.25	1900	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.255	U	U		0.255	0.102	0.25	1900	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.254	U	U		0.254	0.101	0.25	1900	8330B	mg/kg	Analyte not detected at or above the DL or QL.
NB-1	0.252	U	U		0.252	0.101	0.25	1900	8330B	mg/kg	Analyte not detected at or above the DL or QL.
SB-2	0.252	U	U		0.252	0.101	0.25	1900	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.251	U	U		0.251	0.101	0.25	1900	8330B	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-6	0.25	U	U		0.25	0.0998	0.25	1900	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.25	U	U		0.243	0.0973	0.25	1900	8330B	mg/kg	Analyte not detected at or above the DL or QL.
POND-1	0.25	U	U		0.25	0.0999	0.25	1900	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.249	U	U		0.249	0.0977	0.25	1900	8330B	mg/kg	Analyte not detected at or above the DL or QL.
SB-1	0.248	U	U		0.248	0.099	0.25	1900	8330B	mg/kg	Analyte not detected at or above the DL or QL.
NB-2	0.247	U	U		0.247	0.0989	0.25	1900	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.246	U	U		0.247	0.0984	0.25	1900	8330B	mg/kg	Analyte not detected at or above the DL or QL.
BERM-1	0.24	U	U		0.24	0.096	0.25	1900	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.145	J	0.145	J	0.259	0.104	0.25	1900	8330B	mg/kg	Result < QL.
4-Methylphenol											
PAD-6	0.092	U	U		0.18	0.092	0.33	62000	8270D	mg/kg	Analyte not detected. Analyzed in dilution (1:5). QL/DL adjusted
PAD-3	0.02	U	U		0.04	0.02	0.33	62000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.018	U	U		0.035	0.018	0.33	62000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.018	U	U		0.037	0.018	0.33	62000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.018	U	U		0.036	0.018	0.33	62000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.018	U	U		0.036	0.018	0.33	62000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.018	U	U		0.037	0.018	0.33	62000	8270D	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-5	0.018	U	U		0.035	0.018	0.33	62000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.017	U	U		0.034	0.017	0.33	62000	8270D	mg/kg	Analyte not detected at or above the DL or QL. 3-Methylphenol and 4-Methylphenol cannot be resolved. The result represents the total of both compounds.

Summary of Target Analytes

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Analyte/ Sample ID	Laboratory Result	Q	Validated Result Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
4-Nitrophenol										
PAD-6	0.92	U	U	2.8	0.92	1.6	7	8270D	mg/kg	Analyte not detected. Analyzed in dilution (1:5). QL/DL adjusted
PAD-3	0.2	U	U	0.61	0.2	1.6	7	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.18	U	U	0.54	0.18	1.6	7	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.18	U	U	0.53	0.18	1.6	7	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.18	U	U	0.55	0.18	1.6	7	8270D	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-2	0.18	U	U	0.54	0.18	1.6	7	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.18	U	U	0.53	0.18	1.6	7	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.18	U	U	0.55	0.18	1.6	7	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.17	U	U	0.51	0.17	1.6	7	8270D	mg/kg	Analyte not detected at or above the DL or QL.
4-Nitrotoluene										
PAD-2	0.259	U	U	0.259	0.104	0.25	110	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.255	U	U	0.255	0.102	0.25	110	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.255	U	U	0.255	0.102	0.25	110	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.254	U	U	0.254	0.101	0.25	110	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.251	U	U	0.251	0.101	0.25	110	8330B	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-7	0.25	U	U	0.243	0.0973	0.25	110	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.25	U	U	0.25	0.0998	0.25	110	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.249	U	U	0.249	0.0977	0.25	110	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.246	U	U	0.247	0.0984	0.25	110	8330B	mg/kg	Analyte not detected at or above the DL or QL.
Acetophenone										
PAD-6	0.092	U	U	0.18	0.092	0.33	100000	8270D	mg/kg	Analyte not detected. Analyzed in dilution (1:5). QL/DL adjusted
PAD-3	0.02	U	U	0.04	0.02	0.33	100000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.018	U	U	0.035	0.018	0.33	100000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.018	U	U	0.035	0.018	0.33	100000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.018	U	U	0.037	0.018	0.33	100000	8270D	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-2	0.018	U	U	0.036	0.018	0.33	100000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.018	U	U	0.036	0.018	0.33	100000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.018	U	U	0.037	0.018	0.33	100000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.017	U	U	0.034	0.017	0.33	100000	8270D	mg/kg	Analyte not detected at or above the DL or QL.

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 Event Date: August 2015 (Third Quarter 2015)

Analyte/ Sample ID	Laboratory Result Q	Validated Result Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Arsenic									
SB-2	3.2	3.2	2	0.54	1	15.8	6010C	mg/kg	No action taken.
SB-1	3	3	1.7	0.48	1	15.8	6010C	mg/kg	No action taken.
PAD-2	2.7	2.7	1.4	0.4	1	15.8	6010C	mg/kg	No action taken.
PAD-4	2.4	2.4	1.3	0.36	1	15.8	6010C	mg/kg	No action taken.
PAD-5	2.2	2.2	1.4	0.39	1	15.8	6010C	mg/kg	No action taken.
POND-1	2.1	2.1	1.3	0.36	1	15.8	6010C	mg/kg	No action taken.
PAD-X	2	2	1.4	0.39	1	15.8	6010C	mg/kg	No action taken. Field duplicate for PAD-7. RPD = 10.5
PAD-3	1.9	1.9	1.6	0.44	1	15.8	6010C	mg/kg	No action taken.
NB-1	1.9	1.9	1.7	0.48	1	15.8	6010C	mg/kg	No action taken.
PAD-7	1.8	1.8	1.5	0.4	1	15.8	6010C	mg/kg	No action taken.
BERM-1	1.8	1.8	1.3	0.36	1	15.8	6010C	mg/kg	No action taken.
PAD-6	1.7	1.7	1.5	0.4	1	15.8	6010C	mg/kg	No action taken.
NB-2	1.6	1.6	1.5	0.41	1	15.8	6010C	mg/kg	No action taken.
PAD-8	1.6	1.6	1.3	0.36	1	15.8	6010C	mg/kg	No action taken.
PAD-1	1.5	1.5	1.5	0.4	1	15.8	6010C	mg/kg	No action taken.
Barium									
PAD-8	190	190	18	0.36	20	190000	6010C	mg/kg	No action taken.
PAD-1	170	170	20	0.4	20	190000	6010C	mg/kg	No action taken.
SB-2	130	130	26	0.54	20	190000	6010C	mg/kg	No action taken.
PAD-2	120	120	19	0.4	20	190000	6010C	mg/kg	No action taken.
NB-1	110	110	23	0.48	20	190000	6010C	mg/kg	No action taken.
SB-1	100	100	23	0.48	20	190000	6010C	mg/kg	No action taken.
PAD-X	96	96	19	0.39	20	190000	6010C	mg/kg	No action taken. Field duplicate for PAD-7. RPD = 4.2
PAD-7	92	92	19	0.4	20	190000	6010C	mg/kg	No action taken.
NB-2	91	91	20	0.41	20	190000	6010C	mg/kg	No action taken.
PAD-6	82	82	20	0.4	20	190000	6010C	mg/kg	No action taken.
PAD-3	82	82	22	0.44	20	190000	6010C	mg/kg	No action taken.
BERM-1	79	79	18	0.36	20	190000	6010C	mg/kg	No action taken.
PAD-4	79	79	18	0.36	20	190000	6010C	mg/kg	No action taken.
PAD-5	76	76	19	0.39	20	190000	6010C	mg/kg	No action taken.
POND-1	64	64	18	0.36	20	190000	6010C	mg/kg	No action taken.

Summary of Target Analytes

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Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Benzene											
Trip Blank	0.5	U	U		5	0.5	0.005	5.4	8260C	ug/l	Analyte not detected at or above the DL or QL.
PAD-5	0.0005	U	U		0.005	0.0005	0.005	5.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.0005	U	U		0.005	0.0005	0.005	5.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.0005	U	U		0.005	0.0005	0.005	5.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.0005	U	U		0.005	0.0005	0.005	5.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.0004	U	U		0.004	0.0004	0.005	5.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.0004	U	U		0.004	0.0004	0.005	5.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.0004	U	U		0.004	0.0004	0.005	5.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.0004	U	U		0.004	0.0004	0.005	5.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.0004	U	U		0.004	0.0004	0.005	5.4	8260C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
Benzo(a)anthracene											
PAD-6	0.018	U	U		0.094	0.018	0.33	2.1	8270D	mg/kg	Analyte not detected. Analyzed in dilution (1:5). QL/DL adjusted
PAD-4	0.005	J	0.005	J	0.019	0.004	0.33	2.1	8270D	mg/kg	Result < QL.
PAD-3	0.004	U	U		0.021	0.004	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.004	U	U		0.018	0.004	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.004	U	U		0.018	0.004	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.004	U	U		0.018	0.004	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.004	U	U		0.018	0.004	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.004	U	U		0.019	0.004	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-1	0.003	U	U		0.017	0.003	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL.
Benzo(a)pyrene											
PAD-6	0.039	J	0.039	J	0.094	0.018	0.02	0.21	8270D	mg/kg	Result < QL. The internal standard (IS) area was outside control limits. Result estimated.
PAD-4	0.008	J	0.008	J	0.019	0.004	0.02	0.21	8270D	mg/kg	Result < QL. The internal standard (IS) area was outside control limits. Result estimated.
PAD-7	0.006	J	0.006	J	0.018	0.004	0.02	0.21	8270D	mg/kg	Result < QL. The internal standard (IS) area was outside control limits. Result estimated.
PAD-2	0.004	U	U	J	0.018	0.004	0.02	0.21	8270D	mg/kg	Analyte not detected at or above the DL or QL. The internal standard (IS) area was outside control limits. Result estimated.
PAD-5	0.004	U	U	J	0.018	0.004	0.02	0.21	8270D	mg/kg	Analyte not detected at or above the DL or QL. The internal standard (IS) area was outside control limits. Result estimated.
PAD-X	0.004	U	U	J	0.019	0.004	0.02	0.21	8270D	mg/kg	Analyte not detected at or above the DL or QL. The internal standard (IS) area was outside control limits. Result estimated. Field duplicate for PAD-7.
PAD-8	0.004	U	U		0.018	0.004	0.02	0.21	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.004	U	U		0.021	0.004	0.02	0.21	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.003	U	U	J	0.017	0.003	0.02	0.21	8270D	mg/kg	Analyte not detected at or above the DL or QL. The internal standard (IS) area was outside control limits. Result estimated.

Summary of Target Analytes

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Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Benzo(b)fluoranthene											
PAD-6	0.07	J	0.07	J	0.094	0.018	0.33	2.1	8270D	mg/kg	Result < QL. The internal standard (IS) area was outside control limits. Result estimated.
PAD-4	0.014	J	0.014	J	0.019	0.004	0.33	2.1	8270D	mg/kg	Result < QL. The internal standard (IS) area was outside control limits. Result estimated.
PAD-7	0.011	J	0.011	J	0.018	0.004	0.33	2.1	8270D	mg/kg	Result < QL. The internal standard (IS) area was outside control limits. Result estimated. RPD not calculable.
PAD-5	0.009	J	0.009	J	0.018	0.004	0.33	2.1	8270D	mg/kg	Result < QL. The internal standard (IS) area was outside control limits. Result estimated.
PAD-2	0.008	J	0.008	J	0.018	0.004	0.33	2.1	8270D	mg/kg	Result < QL. The internal standard (IS) area was outside control limits. Result estimated.
PAD-X	0.007	J	0.007	J	0.019	0.004	0.33	2.1	8270D	mg/kg	Result < QL. The internal standard (IS) area was outside control limits. Result estimated. Field duplicate for PAD-7. RPD not calculable.
PAD-8	0.004	U	U		0.018	0.004	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.004	U	U		0.021	0.004	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.003	U	U	J	0.017	0.003	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL. The internal standard (IS) area was outside control limits. Result estimated.
Benzo(k)fluoranthene											
PAD-6	0.027	J	0.027	J	0.094	0.018	0.33	2.1	8270D	mg/kg	Result < QL. The internal standard (IS) area was outside control limits. Result estimated.
PAD-4	0.012	J	0.012	J	0.019	0.004	0.33	2.1	8270D	mg/kg	Result < QL. The internal standard (IS) area was outside control limits. Result estimated.
PAD-5	0.01	J	0.01	J	0.018	0.004	0.33	2.1	8270D	mg/kg	Result < QL. The internal standard (IS) area was outside control limits. Result estimated.
PAD-2	0.004	J	0.004	J	0.018	0.004	0.33	2.1	8270D	mg/kg	Result < QL. The internal standard (IS) area was outside control limits. Result estimated.
PAD-8	0.004	U	U		0.018	0.004	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.004	U	U	J	0.018	0.004	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL. The internal standard (IS) area was outside control limits. Result estimated.
PAD-3	0.004	U	U		0.021	0.004	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.004	U	U	J	0.019	0.004	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL. The internal standard (IS) area was outside control limits. Result estimated. Field duplicate for PAD-7.
PAD-1	0.003	U	U	J	0.017	0.003	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL. The internal standard (IS) area was outside control limits. Result estimated.

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 Event Date: August 2015 (Third Quarter 2015)

Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Benzyl Chloride											
Trip Blank	1	U	U		5	1	0.005	4.9	8260C	ug/l	Analyte not detected at or above the DL or QL.
PAD-8	0.001	U	U		0.004	0.001	0.005	4.9	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.001	U	U		0.004	0.001	0.005	4.9	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.0009	U	U		0.004	0.0009	0.005	4.9	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.0009	U	U		0.003	0.0009	0.005	4.9	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.0009	U	U		0.004	0.0009	0.005	4.9	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.0009	U	U		0.003	0.0009	0.005	4.9	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.0009	U	U		0.004	0.0009	0.005	4.9	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.0009	U	U		0.004	0.0009	0.005	4.9	8260C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-6	0.0009	U	U		0.004	0.0009	0.005	4.9	8260C	mg/kg	Analyte not detected at or above the DL or QL.
bis(2-Ethylhexyl) phthalate											
NB-1	0.91		0.91		0.22	0.086	0.33	120	8270D	mg/kg	No action taken.
SB-2	0.45		0.45		0.23	0.091	0.33	120	8270D	mg/kg	No action taken.
PAD-6	0.37	U	U		0.94	0.37	0.33	120	8270D	mg/kg	Analyte not detected. Analyzed in dilution (1:5). QL/DL adjusted
NB-2	0.21	J	0.21	J	0.21	0.081	0.33	120	8270D	mg/kg	Result < QL.
BERM-1	0.1	J	0.1	J	0.18	0.07	0.33	120	8270D	mg/kg	Result < QL.
PAD-1	0.091	J	0.091	J	0.17	0.069	0.33	120	8270D	mg/kg	Result < QL.
SB-1	0.089	U	U		0.23	0.089	0.33	120	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.084	J	0.084	J	0.19	0.073	0.33	120	8270D	mg/kg	Result < QL.
PAD-2	0.082	J	0.082	J	0.18	0.072	0.33	120	8270D	mg/kg	Result < QL.
PAD-3	0.081	U	U		0.21	0.081	0.33	120	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.073	U	U		0.19	0.073	0.33	120	8270D	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-7	0.072	U	U		0.18	0.072	0.33	120	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.071	U	U		0.18	0.071	0.33	120	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.07	U	U		0.18	0.07	0.33	120	8270D	mg/kg	Analyte not detected at or above the DL or QL.
POND-1	0.069	U	U		0.18	0.069	0.33	120	8270D	mg/kg	Analyte not detected at or above the DL or QL.

Summary of Target Analytes

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Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Bromomethane											
Trip Blank	1	U	U		5	1	0.005	32	8260C	ug/l	Analyte not detected at or above the DL or QL.
NB-1	0.003	U	U		0.007	0.003	0.005	32	8260C	mg/kg	Analyte not detected at or above the DL or QL.
SB-1	0.003	U	U		0.008	0.003	0.005	32	8260C	mg/kg	Analyte not detected at or above the DL or QL.
SB-2	0.003	U	U		0.007	0.003	0.005	32	8260C	mg/kg	Analyte not detected at or above the DL or QL.
NB-2	0.003	J	0.003	J	0.006	0.002	0.005	32	8260C	mg/kg	Result < QL.
PAD-4	0.002	U	U		0.005	0.002	0.005	32	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.002	U	U		0.004	0.002	0.005	32	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.002	U	U		0.004	0.002	0.005	32	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.002	U	U		0.004	0.002	0.005	32	8260C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
POND-1	0.002	U	U		0.005	0.002	0.005	32	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.002	U	U		0.005	0.002	0.005	32	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.002	U	U		0.004	0.002	0.005	32	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.002	U	U		0.005	0.002	0.005	32	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.002	U	U		0.004	0.002	0.005	32	8260C	mg/kg	Analyte not detected at or above the DL or QL.
BERM-1	0.002	U	U		0.005	0.002	0.005	32	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.002	U	U		0.005	0.002	0.005	32	8260C	mg/kg	Analyte not detected at or above the DL or QL.
Butyl benzyl phthalate											
PAD-6	0.37	U	U		0.92	0.37	0.33	910	8270D	mg/kg	Analyte not detected. Analyzed in dilution (1:5). QL/DL adjusted
PAD-3	0.081	U	U		0.2	0.081	0.33	910	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.073	U	U		0.18	0.073	0.33	910	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.073	U	U		0.18	0.073	0.33	910	8270D	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-7	0.072	U	U		0.18	0.072	0.33	910	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.072	U	U		0.18	0.072	0.33	910	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.071	U	U		0.18	0.071	0.33	910	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.07	U	U		0.18	0.07	0.33	910	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.069	U	U	J	0.17	0.069	0.33	910	8270D	mg/kg	Analyte not detected at or above the DL or QL. The internal standard (IS) area was outside control limits. Result estimated.

Summary of Target Analytes

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Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Cadmium											
PAD-3	0.54	U	U		0.54	0.023	0.5	800	6010C	mg/kg	Analyte not detected at or above the DL or QL.
SB-2	0.4	J	0.4	J	0.66	0.028	0.5	800	6010C	mg/kg	Result < QL.
PAD-2	0.35	J	0.35	J	0.48	0.02	0.5	800	6010C	mg/kg	Result < QL.
NB-1	0.3	J	0.3	J	0.58	0.024	0.5	800	6010C	mg/kg	Result < QL.
SB-1	0.23	J	0.23	J	0.58	0.024	0.5	800	6010C	mg/kg	Result < QL.
PAD-6	0.19	J	0.19	J	0.49	0.021	0.5	800	6010C	mg/kg	Result < QL.
PAD-4	0.18	J	0.18	J	0.44	0.019	0.5	800	6010C	mg/kg	Result < QL.
NB-2	0.17	J	0.17	J	0.5	0.021	0.5	800	6010C	mg/kg	Result < QL.
PAD-5	0.11	J	0.11	J	0.48	0.02	0.5	800	6010C	mg/kg	Result < QL.
BERM-1	0.11	J	0.11	J	0.44	0.019	0.5	800	6010C	mg/kg	Result < QL.
PAD-7	0.11	J	0.11	J	0.49	0.02	0.5	800	6010C	mg/kg	Result < QL.
POND-1	0.11	J	0.11	J	0.44	0.018	0.5	800	6010C	mg/kg	Result < QL.
PAD-X	0.1	J	0.1	J	0.47	0.02	0.5	800	6010C	mg/kg	Result < QL. Field duplicate for PAD-7.
PAD-1	0.082	J	0.082	J	0.49	0.021	0.5	800	6010C	mg/kg	Result < QL.
PAD-8	0.037	J	0.037	J	0.44	0.019	0.5	800	6010C	mg/kg	Result < QL.
Carbon Tetrachloride											
Trip Blank	1	U	U		5	1	0.005	3	8260C	ug/l	Analyte not detected at or above the DL or QL.
PAD-8	0.001	U	U		0.005	0.001	0.005	3	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.001	U	U		0.005	0.001	0.005	3	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.0009	U	U		0.004	0.0009	0.005	3	8260C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-2	0.0009	U	U		0.004	0.0009	0.005	3	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.0009	U	U		0.004	0.0009	0.005	3	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.0009	U	U		0.004	0.0009	0.005	3	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.0009	U	U		0.004	0.0009	0.005	3	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.0009	U	U		0.005	0.0009	0.005	3	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.0009	U	U		0.005	0.0009	0.005	3	8260C	mg/kg	Analyte not detected at or above the DL or QL.
Chlorobenzene											
Trip Blank	0.8	U	U		5	0.8	0.005	1400	8260C	ug/l	Analyte not detected at or above the DL or QL.
PAD-5	0.001	U	U		0.005	0.001	0.005	1400	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.001	U	U		0.005	0.001	0.005	1400	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.0009	U	U		0.004	0.0009	0.005	1400	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.0009	U	U		0.004	0.0009	0.005	1400	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.0009	U	U		0.004	0.0009	0.005	1400	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.0009	U	U		0.005	0.0009	0.005	1400	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.0009	U	U		0.005	0.0009	0.005	1400	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.0009	U	U		0.004	0.0009	0.005	1400	8260C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-3	0.0009	U	U		0.004	0.0009	0.005	1400	8260C	mg/kg	Analyte not detected at or above the DL or QL.

SEE LAST PAGE FOR DATA QUALIFIER DEFINITIONS.

Summary of Target Analytes

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Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Chloroform											
Trip Blank	0.8	U	U		5	0.8	0.005	1.5	8260C	ug/l	Analyte not detected at or above the DL or QL.
PAD-8	0.001	U	U		0.005	0.001	0.005	1.5	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.001	U	U		0.005	0.001	0.005	1.5	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.0009	U	U		0.005	0.0009	0.005	1.5	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.0009	U	U		0.004	0.0009	0.005	1.5	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.0009	U	U		0.004	0.0009	0.005	1.5	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.0009	U	U		0.005	0.0009	0.005	1.5	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.0009	U	U		0.004	0.0009	0.005	1.5	8260C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-7	0.0009	U	U		0.004	0.0009	0.005	1.5	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.0009	U	U		0.004	0.0009	0.005	1.5	8260C	mg/kg	Analyte not detected at or above the DL or QL.
Chloromethane											
Trip Blank	1	U	U		5	1	0.005	500	8260C	ug/l	Analyte not detected at or above the DL or QL.
PAD-5	0.002	U	U		0.005	0.002	0.005	500	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.002	U	U		0.004	0.002	0.005	500	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.002	U	U		0.004	0.002	0.005	500	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.002	U	U		0.005	0.002	0.005	500	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.002	U	U		0.004	0.002	0.005	500	8260C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-8	0.002	U	U		0.005	0.002	0.005	500	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.002	U	U		0.004	0.002	0.005	500	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.002	U	U		0.005	0.002	0.005	500	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.002	U	U		0.004	0.002	0.005	500	8260C	mg/kg	Analyte not detected at or above the DL or QL.
Chromium											
PAD-6	59		59	J	0.99	0.074	1		6010C	mg/kg	Serial dilution %D > 10 (15%).
PAD-8	25		25	J	0.89	0.067	1		6010C	mg/kg	Serial dilution %D > 10 (15%).
SB-2	23		23	J	1.3	0.098	1		6010C	mg/kg	Serial dilution %D > 10 (15%).
PAD-2	20		20	J	0.97	0.072	1		6010C	mg/kg	Serial dilution %D > 10 (15%).
SB-1	18		18	J	1.2	0.087	1		6010C	mg/kg	Serial dilution %D > 10 (15%).
PAD-3	15		15	J	1.1	0.081	1		6010C	mg/kg	Serial dilution %D > 10 (15%).
POND-1	15		15	J	0.88	0.066	1		6010C	mg/kg	Serial dilution %D > 10 (15%).
NB-1	14		14	J	1.2	0.087	1		6010C	mg/kg	Serial dilution %D > 10 (15%).
PAD-4	13		13	J	0.89	0.067	1		6010C	mg/kg	Serial dilution %D > 10 (15%).
BERM-1	13		13	J	0.88	0.066	1		6010C	mg/kg	Serial dilution %D > 10 (15%).
NB-2	12		12	J	1	0.075	1		6010C	mg/kg	Serial dilution %D > 10 (15%).
PAD-X	12		12	J	0.94	0.071	1		6010C	mg/kg	Serial dilution %D > 10 (15%). Field duplicate for PAD-7. RPD = 0
PAD-7	12		12	J	0.97	0.073	1		6010C	mg/kg	Serial dilution %D > 10 (15%).
PAD-5	12		12	J	0.96	0.072	1		6010C	mg/kg	Serial dilution %D > 10 (15%).
PAD-1	11		11	J	0.98	0.073	1		6010C	mg/kg	Serial dilution %D > 10 (15%).

Summary of Target Analytes

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Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Chromium, hexavalent											
PAD-6	2.2		2.2		0.91	0.29	1	5.6	7196A	mg/Kg	No action taken.
PAD-4	0.88	U	U		0.88	0.29	1	5.6	7196A	mg/Kg	Analyte not detected at or above the DL or QL.
PAD-5	0.86	U	U		0.86	0.28	1	5.6	7196A	mg/Kg	Analyte not detected at or above the DL or QL.
PAD-7	0.86	U	U		0.86	0.28	1	5.6	7196A	mg/Kg	Analyte not detected at or above the DL or QL.
PAD-X	0.85	U	U		0.85	0.28	1	5.6	7196A	mg/Kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-1	0.83	U	U		0.83	0.27	1	5.6	7196A	mg/Kg	Analyte not detected at or above the DL or QL.
PAD-8	0.56	J	0.56	J	0.83	0.27	1	5.6	7196A	mg/Kg	Result < QL.
PAD-3	0.55	J	0.55	J	1	0.33	1	5.6	7196A	mg/Kg	Result < QL.
PAD-2	0.31	J	0.31	J	0.87	0.28	1	5.6	7196A	mg/Kg	Result < QL.
Dibenz(a,h)anthracene											
PAD-6	0.018	U	U	J	0.094	0.018	0.02	0.21	8270D	mg/kg	Analyte not detected at or above the DL or QL. The internal standard (IS) area was outside control limits. Result estimated. Analyzed in dilution (1:5). QL/DL adjusted
PAD-4	0.009	J	0.009	J	0.019	0.004	0.02	0.21	8270D	mg/kg	Result < QL. The internal standard (IS) area was outside control limits. Result estimated.
PAD-8	0.004	U	U		0.018	0.004	0.02	0.21	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.004	U	U	J	0.018	0.004	0.02	0.21	8270D	mg/kg	Analyte not detected at or above the DL or QL. The internal standard (IS) area was outside control limits. Result estimated.
PAD-5	0.004	U	U	J	0.018	0.004	0.02	0.21	8270D	mg/kg	Analyte not detected at or above the DL or QL. The internal standard (IS) area was outside control limits. Result estimated.
PAD-X	0.004	U	U	J	0.019	0.004	0.02	0.21	8270D	mg/kg	Analyte not detected at or above the DL or QL. The internal standard (IS) area was outside control limits. Result estimated. Field duplicate for PAD-7.
PAD-7	0.004	U	U	J	0.018	0.004	0.02	0.21	8270D	mg/kg	Analyte not detected at or above the DL or QL. The internal standard (IS) area was outside control limits. Result estimated.
PAD-3	0.004	U	U		0.021	0.004	0.02	0.21	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.003	U	U		0.017	0.003	0.02	0.21	8270D	mg/kg	Analyte not detected at or above the DL or QL.

Summary of Target Analytes

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Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Diethyl phthalate											
PAD-6	4.1		4.1		0.92	0.37	0.33	490000	8270D	mg/kg	No action taken.
NB-1	1.4		1.4		0.21	0.086	0.33	490000	8270D	mg/kg	No action taken.
PAD-7	0.78		0.78		0.18	0.072	0.33	490000	8270D	mg/kg	No action taken. Field duplicate (PAD-X). RPD not calculable.
NB-2	0.54		0.54		0.2	0.081	0.33	490000	8270D	mg/kg	No action taken.
POND-1	0.42		0.42		0.17	0.069	0.33	490000	8270D	mg/kg	No action taken.
PAD-5	0.27		0.27		0.18	0.07	0.33	490000	8270D	mg/kg	No action taken.
SB-2	0.27		0.27		0.23	0.091	0.33	490000	8270D	mg/kg	No action taken.
PAD-4	0.25		0.25		0.18	0.073	0.33	490000	8270D	mg/kg	No action taken.
BERM-1	0.15	J	0.15	J	0.17	0.07	0.33	490000	8270D	mg/kg	Result < QL.
PAD-X	0.15	J	0.15	J	0.18	0.073	0.33	490000	8270D	mg/kg	Result < QL. Field duplicate for PAD-7. RPD not calculable.
PAD-2	0.1	J	0.1	J	0.18	0.072	0.33	490000	8270D	mg/kg	Result < QL.
PAD-1	0.094	J	0.094	J	0.17	0.069	0.33	490000	8270D	mg/kg	Result < QL.
SB-1	0.089	U	U		0.22	0.089	0.33	490000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.081	U	U		0.2	0.081	0.33	490000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.071	U	U		0.18	0.071	0.33	490000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
Dimethyl phthalate											
NB-1	2.6		2.6		0.21	0.086	0.33	10000000	8270D	mg/kg	No action taken.
NB-2	1.2		1.2		0.2	0.081	0.33	10000000	8270D	mg/kg	No action taken.
PAD-6	0.37	U	U		0.92	0.37	0.33	10000000	8270D	mg/kg	Analyte not detected. Analyzed in dilution (1:5). QL/DL adjusted
SB-2	0.091	U	U		0.23	0.091	0.33	10000000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
SB-1	0.089	U	U		0.22	0.089	0.33	10000000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.081	U	U		0.2	0.081	0.33	10000000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.073	U	U		0.18	0.073	0.33	10000000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.073	U	U		0.18	0.073	0.33	10000000	8270D	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-7	0.072	U	U		0.18	0.072	0.33	10000000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.072	U	U		0.18	0.072	0.33	10000000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.071	U	U		0.18	0.071	0.33	10000000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.07	U	U		0.18	0.07	0.33	10000000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
BERM-1	0.07	U	U		0.17	0.07	0.33	10000000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
POND-1	0.069	U	U		0.17	0.069	0.33	10000000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.069	U	U		0.17	0.069	0.33	10000000	8270D	mg/kg	Analyte not detected at or above the DL or QL.

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 Event Date: August 2015 (Third Quarter 2015)

Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Di-n-butyl phthalate											
PAD-6	16		16	J	0.92	0.37	0.33	62000	8270D	mg/kg	MS/MSD recovered low (21/29%).
PAD-X	3.1		3.1	J	0.18	0.073	0.33	62000	8270D	mg/kg	MS/MSD recovered low (21/29%). Field duplicate for PAD-7. RPD = 142.
PAD-8	2.5		2.5	J	0.18	0.071	0.33	62000	8270D	mg/kg	MS/MSD recovered low (21/29%).
PAD-4	1.8		1.8	J	0.18	0.073	0.33	62000	8270D	mg/kg	MS/MSD recovered low (21/29%).
PAD-1	1		1	J	0.17	0.069	0.33	62000	8270D	mg/kg	MS/MSD recovered low (21/29%).
PAD-5	0.99		0.99	J	0.18	0.07	0.33	62000	8270D	mg/kg	MS/MSD recovered low (21/29%).
NB-1	0.91		0.91	J	0.21	0.086	0.33	62000	8270D	mg/kg	MS/MSD recovered low (21/29%).
PAD-7	0.53		0.53	J	0.18	0.072	0.33	62000	8270D	mg/kg	MS/MSD recovered low (21/29%). RPD for field duplicate (PAD-X) = 142.
BERM-1	0.38		0.38	J	0.17	0.07	0.33	62000	8270D	mg/kg	MS/MSD recovered low (21/29%).
PAD-2	0.28		0.28	J	0.18	0.072	0.33	62000	8270D	mg/kg	MS/MSD recovered low (21/29%).
NB-2	0.25		0.25	J	0.2	0.081	0.33	62000	8270D	mg/kg	MS/MSD recovered low (21/29%).
SB-2	0.24		0.24	J	0.23	0.091	0.33	62000	8270D	mg/kg	MS/MSD recovered low (21/29%).
SB-1	0.089	U	U	J	0.22	0.089	0.33	62000	8270D	mg/kg	Analyte not detected at or above the DL or QL. MS/MSD recovered low (21/29%).
PAD-3	0.081	U	U	J	0.2	0.081	0.33	62000	8270D	mg/kg	Analyte not detected at or above the DL or QL. MS/MSD recovered low (21/29%).
POND-1	0.076	J	0.076	J	0.17	0.069	0.33	62000	8270D	mg/kg	Result < QL. MS/MSD recovered low (21/29%).

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 Event Date: August 2015 (Third Quarter 2015)

Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Diphenylamine											
PAD-6	0.75	J	0.75	J	0.92	0.18	1.6	15000	8270D	mg/kg	Result < QL. MS recovered low (42%). Analyzed in dilution (1:5). N-nitrosodiphenylamine decomposes to diphenylamine. Result represents total of both compounds.
BERM-1	0.51		0.51		0.17	0.035	1.6	15000	8270D	mg/kg	No action taken. MS recovered low (42%). N-nitrosodiphenylamine decomposes to diphenylamine. Result represents total of both compounds.
PAD-4	0.33		0.33		0.18	0.037	1.6	15000	8270D	mg/kg	MS recovered low (42%). N-nitrosodiphenylamine decomposes to diphenylamine. Result represents total of both compounds.
PAD-7	0.27		0.27		0.18	0.036	1.6	15000	8270D	mg/kg	MS recovered low (42%). N-nitrosodiphenylamine decomposes to diphenylamine. Result represents total of both compounds. Field duplicate (PAD-X). RPD not calculable.
PAD-8	0.18		0.18		0.18	0.035	1.6	15000	8270D	mg/kg	No action taken. MS recovered low (42%). N-nitrosodiphenylamine decomposes to diphenylamine. Result represents total of both compounds.
NB-1	0.18	J	0.18	J	0.21	0.043	1.6	15000	8270D	mg/kg	Result < QL. MS recovered low (42%). N-nitrosodiphenylamine decomposes to diphenylamine. Result represents total of both compounds.
PAD-X	0.17	J	0.17	J	0.18	0.037	1.6	15000	8270D	mg/kg	Result < QL. MS recovered low (42%). N-nitrosodiphenylamine decomposes to diphenylamine. Result represents total of both compounds. Field duplicate for PAD-7. RPD not calculable.
PAD-5	0.16	J	0.16	J	0.18	0.035	1.6	15000	8270D	mg/kg	Result < QL. MS recovered low (42%). N-nitrosodiphenylamine decomposes to diphenylamine. Result represents total of both compounds.
PAD-1	0.13	J	0.13	J	0.17	0.034	1.6	15000	8270D	mg/kg	Result < QL. MS recovered low (42%). N-nitrosodiphenylamine decomposes to diphenylamine. Result represents total of both compounds.
POND-1	0.089	J	0.089	J	0.17	0.034	1.6	15000	8270D	mg/kg	Result < QL. MS recovered low (42%). N-nitrosodiphenylamine decomposes to diphenylamine. Result represents total of both compounds.
PAD-2	0.077	J	0.077	J	0.18	0.036	1.6	15000	8270D	mg/kg	Result < QL. MS recovered low (42%). N-nitrosodiphenylamine decomposes to diphenylamine. Result represents total of both compounds.
NB-2	0.048	J	0.048	J	0.2	0.041	1.6	15000	8270D	mg/kg	Result < QL. MS recovered low (42%). N-nitrosodiphenylamine decomposes to diphenylamine. Result represents total of both compounds.
SB-2	0.045	U	U		0.23	0.045	1.6	15000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
SB-1	0.044	U	U		0.22	0.044	1.6	15000	8270D	mg/kg	Analyte not detected at or above the DL or QL. MS recovered low (42%). N-nitrosodiphenylamine decomposes to diphenylamine. Result represents total of both compounds.
PAD-3	0.04	U	U		0.2	0.04	1.6	15000	8270D	mg/kg	Analyte not detected at or above the DL or QL. MS recovered low (42%). N-nitrosodiphenylamine decomposes to diphenylamine. Result represents total of both compounds.

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 Event Date: August 2015 (Third Quarter 2015)

Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Fluoranthene											
PAD-6	0.023	J	0.023	J	0.094	0.018	0.33	22000	8270D	mg/kg	Result < QL. CV %D > +/- 20 (38%). MS recovered low (68%).
PAD-4	0.01	J	0.01	J	0.019	0.004	0.33	22000	8270D	mg/kg	Result < QL. CV %D > +/- 20 (38%). MS recovered low (68%).
PAD-5	0.005	J	0.005	J	0.018	0.004	0.33	22000	8270D	mg/kg	Result < QL. CV %D > +/- 20 (38%). MS recovered low (68%).
PAD-X	0.004	U	U	J	0.019	0.004	0.33	22000	8270D	mg/kg	Analyte not detected. CV %D > +/- 20 (38%). MS recovered low (68%). Field duplicate for PAD-7.
PAD-2	0.004	J	0.004	J	0.018	0.004	0.33	22000	8270D	mg/kg	Result < QL. CV %D > +/- 20 (38%). MS recovered low (68%).
PAD-7	0.004	U	U	J	0.018	0.004	0.33	22000	8270D	mg/kg	Analyte not detected. CV %D > +/- 20 (38%). MS recovered low (68%).
PAD-3	0.004	U	U	J	0.021	0.004	0.33	22000	8270D	mg/kg	Analyte not detected. CV %D > +/- 20 (38%). MS recovered low (68%).
PAD-8	0.004	U	U	J	0.018	0.004	0.33	22000	8270D	mg/kg	Analyte not detected. CV %D > +/- 20 (38%). MS recovered low (68%).
PAD-1	0.003	U	U	J	0.017	0.003	0.33	22000	8270D	mg/kg	Analyte not detected. CV %D > +/- 20 (38%). MS recovered low (68%).
Hexachloroethane											
PAD-6	0.18	U	U		0.92	0.18	0.33	43	8270D	mg/kg	Analyte not detected. Analyzed in dilution (1:5). QL/DL adjusted
PAD-3	0.04	U	U		0.2	0.04	0.33	43	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.037	U	U		0.18	0.037	0.33	43	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.037	U	U		0.18	0.037	0.33	43	8270D	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-2	0.036	U	U		0.18	0.036	0.33	43	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.036	U	U		0.18	0.036	0.33	43	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.035	U	U		0.18	0.035	0.33	43	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.035	U	U		0.18	0.035	0.33	43	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.034	U	U		0.17	0.034	0.33	43	8270D	mg/kg	Analyte not detected at or above the DL or QL.
HMX											
NB-1	0.386		0.386		0.252	0.101	2.2	49000	8330B	mg/kg	No action taken.
PAD-2	0.259	U	U		0.259	0.104	2.2	49000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.255	U	U		0.255	0.102	2.2	49000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.255	U	U		0.255	0.102	2.2	49000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.253	U	U		0.254	0.101	2.2	49000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
SB-2	0.252	U	U		0.252	0.101	2.2	49000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.251	U	U		0.251	0.101	2.2	49000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.25	U	U		0.25	0.0998	2.2	49000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
POND-1	0.25	U	U		0.25	0.0999	2.2	49000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.25	U	U		0.243	0.0973	2.2	49000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.249	U	U		0.249	0.0977	2.2	49000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
SB-1	0.248	U	U		0.248	0.099	2.2	49000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
NB-2	0.247	U	U		0.247	0.0989	2.2	49000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
BERM-1	0.24	U	U		0.24	0.096	2.2	49000	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.129	J	0.129	J	0.247	0.0984	2.2	49000	8330B	mg/kg	Result < QL.

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 Event Date: August 2015 (Third Quarter 2015)

Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Indeno(1,2,3-cd)pyrene											
PAD-6	0.031	J	0.031	J	0.094	0.018	0.33	2.1	8270D	mg/kg	Result < QL. The internal standard (IS) area was outside control limits. Result estimated.
PAD-4	0.01	J	0.01	J	0.019	0.004	0.33	2.1	8270D	mg/kg	Result < QL. The internal standard (IS) area was outside control limits. Result estimated.
PAD-7	0.009	J	0.009	J	0.018	0.004	0.33	2.1	8270D	mg/kg	Result < QL. The internal standard (IS) area was outside control limits. Result estimated.
PAD-5	0.004	U	U	J	0.018	0.004	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL. The internal standard (IS) area was outside control limits. Result estimated.
PAD-X	0.004	U	U	J	0.019	0.004	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL. The internal standard (IS) area was outside control limits. Result estimated. Field duplicate for PAD-7.
PAD-8	0.004	U	U		0.018	0.004	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.004	U	U		0.021	0.004	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.004	U	U	J	0.018	0.004	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL. The internal standard (IS) area was outside control limits. Result estimated.
PAD-1	0.003	U	U	J	0.017	0.003	0.33	2.1	8270D	mg/kg	Analyte not detected at or above the DL or QL. The internal standard (IS) area was outside control limits. Result estimated.
Lead											
PAD-6	620		620	J	0.99	0.022	0.3	800	6010C	mg/kg	Serial dilution %D > 10 (17%). Verification event was perform on September 25, 2015. Original result 900 mg/kg. Verification result reported.
PAD-2	220		220	J	0.97	0.021	0.3	800	6010C	mg/kg	Serial dilution %D > 10 (17%). MS/MSD recovered low (43%).
NB-1	210		210	J	1.2	0.026	0.3	800	6010C	mg/kg	Serial dilution %D > 10 (17%). MS/MSD recovered low (43%).
NB-2	180		180	J	1	0.022	0.3	800	6010C	mg/kg	Serial dilution %D > 10 (17%). MS/MSD recovered low (43%).
BERM-1	160		160	J	0.88	0.019	0.3	800	6010C	mg/kg	Serial dilution %D > 10 (17%). MS/MSD recovered low (43%).
SB-2	150		150	J	1.3	0.029	0.3	800	6010C	mg/kg	Serial dilution %D > 10 (17%). MS/MSD recovered low (43%).
PAD-4	120		120	J	0.89	0.02	0.3	800	6010C	mg/kg	Serial dilution %D > 10 (17%). MS/MSD recovered low (43%).
PAD-5	120		120	J	0.96	0.021	0.3	800	6010C	mg/kg	Serial dilution %D > 10 (17%). MS/MSD recovered low (43%).
PAD-8	110		110	J	0.89	0.02	0.3	800	6010C	mg/kg	Serial dilution %D > 10 (17%). MS/MSD recovered low (43%).
PAD-7	97		97	J	0.97	0.021	0.3	800	6010C	mg/kg	Serial dilution %D > 10 (17%). MS/MSD recovered low (43%).
PAD-X	91		91	J	0.94	0.021	0.3	800	6010C	mg/kg	Serial dilution %D > 10 (17%). MS/MSD recovered low (43%). Field duplicate for PAD-7. RPD = 6.4.
SB-1	73		73	J	1.2	0.026	0.3	800	6010C	mg/kg	Serial dilution %D > 10 (17%). MS/MSD recovered low (43%).
POND-1	70		70	J	0.88	0.019	0.3	800	6010C	mg/kg	Serial dilution %D > 10 (17%). MS/MSD recovered low (43%).
PAD-1	54		54	J	0.98	0.022	0.3	800	6010C	mg/kg	Serial dilution %D > 10 (17%). MS/MSD recovered low (43%).
PAD-3	8.8		8.8	J	1.1	0.024	0.3	800	6010C	mg/kg	Serial dilution %D > 10 (17%). MS/MSD recovered low (43%).

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 Event Date: August 2015 (Third Quarter 2015)

Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Mercury											
PAD-4	0.099	U	U		0.099	0.014	0.1	43	7471A	mg/Kg	Analyte not detected at or above the DL or QL.
PAD-X	0.098	U	U		0.098	0.014	0.1	43	7471A	mg/Kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-8	0.094	U	U		0.094	0.013	0.1	43	7471A	mg/Kg	Analyte not detected at or above the DL or QL.
PAD-1	0.093	U	U		0.093	0.013	0.1	43	7471A	mg/Kg	Analyte not detected at or above the DL or QL.
PAD-6	0.038	J	0.038	J	0.12	0.016	0.1	43	7471A	mg/Kg	Result < QL.
PAD-3	0.033	J	0.033	J	0.12	0.017	0.1	43	7471A	mg/Kg	Result < QL.
PAD-5	0.029	J	0.029	J	0.1	0.014	0.1	43	7471A	mg/Kg	Result < QL.
PAD-2	0.027	J	0.027	J	0.12	0.017	0.1	43	7471A	mg/Kg	Result < QL.
PAD-7	0.018	J	0.018	J	0.1	0.014	0.1	43	7471A	mg/Kg	Result < QL.
Methylene Chloride											
Trip Blank	2	U	U		5	2	0.005	960	8260C	ug/l	Analyte not detected at or above the DL or QL.
PAD-5	0.002	U	U		0.005	0.002	0.005	960	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.002	U	U		0.004	0.002	0.005	960	8260C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-3	0.002	U	U		0.004	0.002	0.005	960	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.002	U	U		0.005	0.002	0.005	960	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.002	U	U		0.004	0.002	0.005	960	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.002	U	U		0.005	0.002	0.005	960	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.002	U	U		0.005	0.002	0.005	960	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.002	U	U		0.004	0.002	0.005	960	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.002	U	U		0.004	0.002	0.005	960	8260C	mg/kg	Analyte not detected at or above the DL or QL.
Naphthalene											
PAD-4	0.02		0.02		0.019	0.004	0.33	18	8270D	mg/kg	No action taken.
PAD-6	0.018	U	U		0.094	0.018	0.33	18	8270D	mg/kg	Analyte not detected. Analyzed in dilution (1:5). QL/DL adjusted
PAD-5	0.008	J	0.008	J	0.018	0.004	0.33	18	8270D	mg/kg	Result < QL.
PAD-7	0.007	J	0.007	J	0.018	0.004	0.33	18	8270D	mg/kg	Result < QL.
PAD-X	0.006	J	0.006	J	0.019	0.004	0.33	18	8270D	mg/kg	Result < QL. Field duplicate for PAD-7.
PAD-3	0.004	U	U		0.021	0.004	0.33	18	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.004	J	0.004	J	0.018	0.004	0.33	18	8270D	mg/kg	Result < QL.
PAD-2	0.004	U	U		0.018	0.004	0.33	18	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.003	U	U		0.017	0.003	0.33	18	8270D	mg/kg	Analyte not detected at or above the DL or QL.

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 Event Date: August 2015 (Third Quarter 2015)

Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Nitrobenzene											
PAD-2	0.259	U	U		0.259	0.104	0.25	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.255	U	U		0.255	0.102	0.25	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.255	U	U		0.255	0.102	0.25	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.253	U	U		0.254	0.101	0.25	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.251	U	U		0.251	0.101	0.25	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.25	U	U		0.25	0.0998	0.25	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.25	U	U		0.243	0.0973	0.25	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.249	U	U		0.249	0.0977	0.25	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.246	U	U		0.247	0.0984	0.25	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
Nitroglycerin											
PAD-5	57.6		57.6		5.1	2.04	2.5	62	8330B	mg/kg	Analyzed in dilution (1:20).
NB-2	56.2		56.2		4.94	1.97	2.5	62	8330B	mg/kg	Analyzed in dilution (1:20).
PAD-4	53.2		53.2		4.92	1.97	2.5	62	8330B	mg/kg	Analyzed in dilution (1:20).
PAD-6	48.5		48.5		4.99	2	2.5	62	8330B	mg/kg	Analyzed in dilution (1:20).
PAD-1	13		13		1.27	0.508	2.5	62	8330B	mg/kg	Analyzed in dilution (1:5).
PAD-X	11.3		11.3		1.26	0.503	2.5	62	8330B	mg/kg	No action taken. Field duplicate for PAD-7. RPD = 10.2
BERM-1	10.6		10.6		1.2	0.48	2.5	62	8330B	mg/kg	Analyzed in dilution (1:5).
PAD-7	10.2		10.2		1.25	0.5	2.5	62	8330B	mg/kg	No action taken.
PAD-2	8.05		8.05		0.259	0.104	2.5	62	8330B	mg/kg	No action taken.
POND-1	5.26		5.26		0.25	0.0999	2.5	62	8330B	mg/kg	No action taken.
NB-1	3.87		3.87		0.252	0.101	2.5	62	8330B	mg/kg	No action taken.
SB-2	2.78		2.78		0.252	0.101	2.5	62	8330B	mg/kg	No action taken.
PAD-8	0.549		0.549		0.255	0.102	2.5	62	8330B	mg/kg	No action taken.
PAD-3	0.249	U	U		0.249	0.0995	2.5	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
SB-1	0.248	U	U		0.248	0.099	2.5	62	8330B	mg/kg	Analyte not detected at or above the DL or QL.
Perchlorate											
PAD-6	0.00256		0.0025		0.00197	0.000985	0.002	720	6850	mg/kg	No action taken.
PAD-3	0.00239	U	U		0.00239	0.0012	0.002	720	6850	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.00214	U	U		0.00214	0.00107	0.002	720	6850	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.00212	U	U		0.00212	0.00106	0.002	720	6850	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.00208	U	U		0.00208	0.00104	0.002	720	6850	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7. RPD not calculable.
PAD-2	0.00208	U	U		0.00208	0.00104	0.002	720	6850	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.00203	U	U		0.00203	0.00101	0.002	720	6850	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.002	U	U		0.002	0.001	0.002	720	6850	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.002	U	U		0.002	0.001	0.002	720	6850	mg/kg	Analyte not detected at or above the DL or QL.

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 Event Date: August 2015 (Third Quarter 2015)

Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Phenol											
PAD-6	0.092	U	U		0.18	0.092	0.33	180000	8270D	mg/kg	Analyte not detected. Analyzed in dilution (1:5). QL/DL adjusted
PAD-3	0.02	U	U		0.04	0.02	0.33	180000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.018	U	U		0.035	0.018	0.33	180000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.018	U	U		0.037	0.018	0.33	180000	8270D	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-4	0.018	U	U		0.037	0.018	0.33	180000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.018	U	U		0.035	0.018	0.33	180000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.018	U	U		0.036	0.018	0.33	180000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.018	U	U		0.036	0.018	0.33	180000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.017	U	U		0.034	0.017	0.33	180000	8270D	mg/kg	Analyte not detected at or above the DL or QL.
RDX											
PAD-2	0.259	U	U		0.259	0.104	1	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.255	U	U		0.255	0.102	1	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.255	U	U		0.255	0.102	1	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.254	U	U		0.254	0.101	1	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.251	U	U		0.251	0.101	1	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.25	U	U		0.243	0.0973	1	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.25	U	U		0.25	0.0998	1	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.249	U	U		0.249	0.0977	1	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.246	U	U		0.247	0.0984	1	24	8330B	mg/kg	Analyte not detected at or above the DL or QL.
Selenium											
PAD-3	2.2	U	U		2.2	0.37	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
NB-2	2	U	U		2	0.34	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	2	U	U		2	0.33	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	2	U	U		2	0.34	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	1.9	U	U		1.9	0.33	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	1.9	U	U		1.9	0.33	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	1.9	U	U		1.9	0.32	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-2	1.9	U	U		1.9	0.33	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
POND-1	1.8	U	U		1.8	0.3	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	1.8	U	U		1.8	0.3	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	1.8	U	U		1.8	0.3	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
SB-2	0.5	J	0.5	J	2.6	0.45	1	5100	6010C	mg/kg	Result < QL.
NB-1	0.44	J	0.44	J	2.3	0.39	1	5100	6010C	mg/kg	Result < QL.
SB-1	0.4	J	0.4	J	2.3	0.4	1	5100	6010C	mg/kg	Result < QL.
BERM-1	0.38	J	0.38	J	1.8	0.3	1	5100	6010C	mg/kg	Result < QL.

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 Event Date: August 2015 (Third Quarter 2015)

Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Silver											
PAD-3	1.1	U	U		1.1	0.068	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.99	U	U		0.99	0.062	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.98	U	U		0.98	0.062	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.97	U	U		0.97	0.061	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.97	U	U		0.97	0.061	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.96	U	U		0.96	0.06	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.94	U	U		0.94	0.059	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-8	0.89	U	U		0.89	0.056	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.89	U	U		0.89	0.056	1	5100	6010C	mg/kg	Analyte not detected at or above the DL or QL.
Tetrachloroethene											
Trip Blank	0.8	U	U		5	0.8	0.005	110	8260C	ug/l	Analyte not detected at or above the DL or QL.
PAD-8	0.001	U	U		0.005	0.001	0.005	110	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.001	U	U		0.005	0.001	0.005	110	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.0009	U	U		0.005	0.0009	0.005	110	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.0009	U	U		0.004	0.0009	0.005	110	8260C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-7	0.0009	U	U		0.004	0.0009	0.005	110	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.0009	U	U		0.004	0.0009	0.005	110	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.0009	U	U		0.004	0.0009	0.005	110	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.0009	U	U		0.004	0.0009	0.005	110	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.0009	U	U		0.005	0.0009	0.005	110	8260C	mg/kg	Analyte not detected at or above the DL or QL.
Tetryl											
PAD-2	0.259	U	U	J	0.259	0.104	0.65	1200	8330B	mg/kg	Analyte not detected at or above the DL or QL. CV %D > +/- 20 (25.9).
PAD-8	0.255	U	U	J	0.255	0.102	0.65	1200	8330B	mg/kg	Analyte not detected at or above the DL or QL. CV %D > +/- 20 (25.9).
PAD-5	0.255	U	U	J	0.255	0.102	0.65	1200	8330B	mg/kg	Analyte not detected at or above the DL or QL. CV %D > +/- 20 (25.9).
PAD-1	0.254	U	U	J	0.254	0.101	0.65	1200	8330B	mg/kg	Analyte not detected at or above the DL or QL. CV %D > +/- 20 (25.9).
PAD-X	0.251	U	U	J	0.251	0.101	0.65	1200	8330B	mg/kg	Analyte not detected at or above the DL or QL. CV %D > +/- 20 (25.9). Field duplicate for PAD-7.
PAD-7	0.25	U	U	J	0.243	0.0973	0.65	1200	8330B	mg/kg	Analyte not detected at or above the DL or QL. CV %D > +/- 20 (25.9).
PAD-6	0.25	U	U	J	0.25	0.0998	0.65	1200	8330B	mg/kg	Analyte not detected at or above the DL or QL. CV %D > +/- 20 (25.9).
PAD-3	0.249	U	U	J	0.249	0.0977	0.65	1200	8330B	mg/kg	Analyte not detected at or above the DL or QL. CV %D > +/- 20 (25.9).
PAD-4	0.246	U	U	J	0.247	0.0984	0.65	1200	8330B	mg/kg	Analyte not detected at or above the DL or QL. CV %D > +/- 20 (25.9).

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 Event Date: August 2015 (Third Quarter 2015)

Analyte/ Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Toluene											
Trip Blank	0.7	U	U		5	0.7	0.005	45000	8260C	ug/l	Analyte not detected at or above the DL or QL.
PAD-8	0.001	U	U		0.005	0.001	0.005	45000	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.001	U	U		0.005	0.001	0.005	45000	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.0009	U	U		0.004	0.0009	0.005	45000	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.0009	U	U		0.004	0.0009	0.005	45000	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.0009	U	U		0.005	0.0009	0.005	45000	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.0009	U	U		0.005	0.0009	0.005	45000	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.0009	U	U		0.004	0.0009	0.005	45000	8260C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-1	0.0009	U	U		0.004	0.0009	0.005	45000	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.0009	U	U		0.004	0.0009	0.005	45000	8260C	mg/kg	Analyte not detected at or above the DL or QL.
TPH (as Diesel)											
PAD-4	19		19		18	7.1	20	11000	8015C	mg/kg	No action taken.
PAD-1	14	J	14	J	17	6.6	20	11000	8015C	mg/kg	Result < QL.
PAD-7	11	J	11	J	18	7	20	11000	8015C	mg/kg	Result < QL.
PAD-X	8.5	J	8.5	J	18	6.7	20	11000	8015C	mg/kg	Result < QL. Field duplicate for PAD-7.
Trichloroethene											
Trip Blank	1	U	U		5	1	0.005	6.4	8260C	ug/l	Analyte not detected at or above the DL or QL.
SB-1	0.002	U	U		0.008	0.002	0.005	6.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
NB-1	0.001	U	U		0.007	0.001	0.005	6.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
SB-2	0.001	U	U		0.007	0.001	0.005	6.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
NB-2	0.001	U	U		0.006	0.001	0.005	6.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
BERM-1	0.001	U	U		0.005	0.001	0.005	6.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.001	U	U		0.005	0.001	0.005	6.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-5	0.001	U	U		0.005	0.001	0.005	6.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
POND-1	0.001	U	U		0.005	0.001	0.005	6.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.0009	U	U		0.005	0.0009	0.005	6.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.0009	U	U		0.004	0.0009	0.005	6.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.0009	U	U		0.004	0.0009	0.005	6.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.0009	U	U		0.004	0.0009	0.005	6.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-6	0.0009	U	U		0.005	0.0009	0.005	6.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.0009	U	U		0.004	0.0009	0.005	6.4	8260C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-2	0.0009	U	U		0.004	0.0009	0.005	6.4	8260C	mg/kg	Analyte not detected at or above the DL or QL.

Summary of Target Analytes

Open Burning Ground (OBG) Soil Monitoring Program-HWMU 13 Event Date: August 2015 (Third Quarter 2015)

Analyte/ Sample ID	Laboratory Result	Q	Validated Result Q	LAB QL	LAB DL	RL	AL	Method	Unit	Data Validation Note
Vinyl Chloride										
Trip Blank	0.5	U	U	2	0.5	0.005	1.7	8260C	ug/l	Analyte not detected at or above the DL or QL.
PAD-5	0.001	U	U	0.005	0.001	0.005	1.7	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-8	0.001	U	U	0.005	0.001	0.005	1.7	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-3	0.0009	U	U	0.004	0.0009	0.005	1.7	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-7	0.0009	U	U	0.004	0.0009	0.005	1.7	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-4	0.0009	U	U	0.005	0.0009	0.005	1.7	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-2	0.0009	U	U	0.004	0.0009	0.005	1.7	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-1	0.0009	U	U	0.004	0.0009	0.005	1.7	8260C	mg/kg	Analyte not detected at or above the DL or QL.
PAD-X	0.0009	U	U	0.004	0.0009	0.005	1.7	8260C	mg/kg	Analyte not detected at or above the DL or QL. Field duplicate for PAD-7.
PAD-6	0.0009	U	U	0.005	0.0009	0.005	1.7	8260C	mg/kg	Analyte not detected at or above the DL or QL.

Definitions:

Data validation qualifier:

QL Denotes laboratory quantitation limit (varies due to soil factors)
DL Denotes laboratory method detection limit (varies due to soil factors)
RL Denotes reporting limit as specified in Table 1 Attachment II.C-23-24, updated June 2014 Class 1 Permit Modification
AL Denotes Action level as specified in Table 1 Attachment II.C-23-24, updated June 2014 Class 1 Permit Modification.
U Denotes the analyte was analyzed for, but was not detected at or above the DL. DL < AL except if qualified with "A" (see below).
J Denotes result is an estimated value. See sample specific note presented on data validation report table for further explanation.
UJ Denotes the analyte was analyzed for, but was not detected at or above the DL. However, the lab QL/DL estimated due to data validation. See sample specific note presented on data validation report table for further explanation.
A Laboratory QL and laboratory DL above permit AL.
R Denotes sample result was rejected. See sample specific note presented on data validation report table for further explanation.
Q Denotes Data Qualifier.

Laboratory data qualifiers:

B Denotes target analyte detected > lab DL and associated concentration is considered estimated. This is a laboratory data qualifier for inorganics, where applicable
J Denotes target analyte detected > lab DL and associated concentration is considered estimated.

Note-Dioxin/Furan results presented in a separate table.
Analyses performed by laboratories listed in data validation report.
PAD-X is field sample duplicate for PAD-7, unless noted.

NOTE (1):

- Results reported on a dry weight basis, where applicable.
- See laboratory report for definition of laboratory result qualifiers, if needed.
- AL does not apply to equipment blank or Trip blank.
- For April 2012 sampling event, PAD-6 for 8270C was analyzed in dilution. The DL for several analytes was greater than the RL but less than the AL. See sample specific note presented on data validation report table for further explanation

Draper Aden Associates
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Memorandum

To:	File
From:	Kathy Olsen, Environmental Scientist, Draper Aden Associates
Date:	January 29, 2016
Project Name:	Open Burning Ground Soil Monitoring Program
Project Number:	JN: B03204-215
Subject:	Data Validation Report – August 2015 Soil Monitoring Event
cc:	

This memorandum documents the manual data validation of the analytical results from samples collected during the August 13, 2015 Open Burning Ground (OBG) soil sampling event at the Radford Army Ammunition Plant (RFAAP) located in Radford, Virginia.

Draper Aden Associates, of Blacksburg, Virginia, collected the following soil samples: PAD-1 through PAD-8, NB-1, NB-2, SB-1, SB-2, BERM-1 and POND-1. PAD-X was submitted to the laboratory as a blind field sample duplicate for PAD-7, except for dioxin analysis. PAD-XX was submitted to the laboratory as a blind field sample duplicate for PAD-1 for dioxin analysis only. Additional sample aliquot was submitted for sample PAD-4, the sample selected for MS/MSD analysis, except where noted.

Soil samples were analyzed by USEPA SW-846 Test Methods for Evaluating Solid Wastes (SW-846) Methods 8260C, 8270D, 8290A, 8330B, 8015C, 6850, 6010C, 7196A, 7471A and total residue as percent solids by MCAWW 160.3 MOD. The trip blank was analyzed for only Method 8260C volatile organics and the equipment blank was analyzed for all analyses. Final analytical results were received by Draper Aden Associates on September 10, 2015. Final analytical results for the verification event were received on October 1, 2015.

The samples were sent via overnight courier to Eurofins Lancaster Laboratories Environmental (ELLE), of Lancaster, Pennsylvania; to TestAmerica North Canton (TestAmerica), of North Canton, Ohio; and to Microbac Laboratories Ohio Valley Division, (Microbac), of Marietta, Ohio. TestAmerica subcontracted work to TestAmerica, Knoxville of Knoxville, Tennessee.

ELLE performed the Methods 8260C and 8270D analyses. TestAmerica, North Canton performed the Methods 8015C, 6010C, 7196A, 7471A/7470A analyses; TestAmerica, Knoxville performed the 8290A analysis. Microbac performed the Method 8330B and 6850 analyses. Each laboratory submitted results to Draper Aden Associates in a final certificate of analysis, which included sample analytical results as well as relevant documentation to validate and verify the results.

Data were evaluated in general accordance with:

- *Test Methods for Evaluating Solid Wastes - Physical and Chemical Methods*, USEPA SW-846, 3rd edition - Final Update I, II/IIA, III and subsequent updates
- *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*, June 2008, where applicable.
- *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review*, January 2010
- *USEPA Contract Laboratory Program National Functional Guidelines for Chlorinated Dioxin/Furan Data Review*, September 2011

Draper Aden Associates, of Blacksburg, Virginia, performed comprehensive data validation, including recalculation of a minimum ten percent of the data, except where noted otherwise. A summary of data validation results for each analytical method is provided below. A summary table of data validation results by sample location is provided as an attachment. No results were rejected.

The Chain of Custody (COC) and project specific target analyte list are provided as an attachment. The laboratory reported the soil results on a dry weight basis, unless noted below.

As required by the permit, the laboratories reported results at or above the method detection limit (DL) for the target analytes (constituents) listed on Table 1, in Attachment II.C-23 -24 of the operating permit. Final validated results were reported to at or above the laboratory DL. Reported detections greater than the DL but less than the laboratory quantitation limit (QL) were considered estimated concentrations. These estimated detections were reported with the "J" qualifier. Laboratory QLs and DLs were equal to or less than the reporting limit (RL) and action limit (AL) noted on Table 1, except where noted below.

The COC documentation was complete, except where noted. The laboratories received the samples on ice, in good condition with custody seals intact. The Microbac COC noted that the perchlorate samples were collected in clear glass; however, the samples were collected in amber glass as recommended by the method and per the field technician.

Results were generated from a laboratory accredited under the Virginia Environmental Laboratory Accreditation Program (VELAP).

Method 8260C/5035A (Soil)/5030C (Water) – Volatile Organic Constituents

Technical holding time and sample preservation criteria were met. QC history documentation, instrument performance check (tuning) criteria, initial calibration, calibration verification, blank, surrogate, MS/MSD, LCS/LCSD and internal standard requirements were met, except where noted below. Additional data validation criteria that were evaluated are presented on the attached data validation report. Deviations from specific quality control criteria that were identified during the data review process are summarized below.

The internal standard area for 1,4-dichlorobenzene-d4 in samples POND-1, SB-1, and SB-2 was outside the lower area control limit; this internal standard was associated with benzyl chloride only. Benzyl chloride was not a target analyte for these sampling points and no data qualification was needed. The remaining internal standard criteria were met.

Project samples effervesced upon sodium bisulfate preservation; samples were prepared with the DI water preserved aliquot and no data qualification was needed.

Field duplicate/sample results exhibited acceptable precision (RPD <35), where applicable. No data transcription or calculation check errors were noted. Soil samples were collected in the field in general accordance with Method 5035A. Sample weights varied and sample QL and DLs were adjusted accordingly. No detections were reported above the AL.

Method 8270D/3546 (3510C-water) – Semivolatile Organic Constituents

Technical holding time and sample preservation criteria were met except where noted below. Samples were extracted using Method 3546 and 3510C (water/equipment blank). Instrument performance check (tuning) criteria, initial calibration, calibration verification, blank, surrogate, MS/MSD, LCS, and internal standard requirements were met, except where noted below. Additional data validation criteria that were evaluated are presented on the attached data validation report. Deviations from specific quality control criteria that were identified during the data review process are summarized below.

Fluoranthene did not meet the continuing calibration verification (CV) standard percent difference/drift requirement (±20%). Fluoranthene results not detected at or above the DL and QL in any sample and sample results for this analyte were validated and qualified "UJ" to note that the DL and QL were estimated due to the observed QC deficiency. Fluoranthene results detected below the QL were qualified as "J" to note the result is estimated (see validation report).

The MS/MSD did not recover for 3,3'-dimethylbenzidine. The MS and/or MSD recovered low for di-n-butyl phthalate, diphenylamine and fluoranthene. Results for these analytes were qualified as estimated "J" due to the low MS/MSD recoveries.

The internal standard area for perylene-d12 was outside the control limit for samples PAD-1, PAD-2, PAD-4, PAD-5, PAD-6, PAD-7, and PAD-X. These samples were reanalyzed with similar internal standard recoveries. The original analysis was reported as the final results. Analytes associated with this internal standard were validated and qualified as estimated due to the observed QC deficiency (benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, dibenz(a,h)anthracene and indeno(1,2,3-cd)pyrene).

The laboratory DL and QL for 3,3-dimethylbenzidine were above the action level (AL). 3,3-Dimethylbenzidine was not detected at or above the DL and the 3,3-dimethylbenzidine results were reported with an "A" qualifier to note the QL and DL were above the AL.

PAD-6 was diluted prior to analysis due to matrix interference. Similar interferences for this sample were noted in previous events. The diluted sample was analyzed and the resulting laboratory QLs and DLs for the target analytes were adjusted by the dilution factor. For several analytes, the adjusted QLs and/or DLs were greater than the RL. However, except for 3,3'-dimethylbenzidine noted above, the adjusted laboratory QL and DL were below the AL for each target analyte and no data qualification was required. 3,3'-Dimethylbenzidine was not reported at or above the adjusted DL or adjusted QL (PAD-6 only) and the result was qualified with "A" to not the adjusted QL and DL were above the AL.

3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. 3-Methylphenol and 4-methylphenol as reported represent the combined total of both analytes.

N-nitrosodiphenylamine decomposes to diphenylamine. The reported diphenylamine result represent the combined total of both analytes.

The relative percent difference between PAD-7 and PAD-X for di-n-butylphthalate did not meet acceptance criteria (<35%) and results for di-n-butylphthalate in these samples were qualified as estimated. The remaining field duplicate/sample results between PAD-7 and PAD-X exhibited acceptable precision or no data qualification was needed.

No data transcription or calculation check errors were noted. Sample weights varied and sample QL and DLs were adjusted accordingly. No detections were reported above the AL.

Method 8290A – Dioxins/Furans

Technical holding time and sample preservation criteria were met. Instrument performance check (tuning) criteria, initial calibration, calibration verification, blank, surrogate, MS/MSD, LCS, and internal standard requirements were met, except where noted below. Additional data validation criteria that were evaluated are presented on the attached data validation reports. Deviations from specific quality control criteria that were identified during the data review process are summarized below.

Laboratory blank contamination was detected below the QL in the method blank and/or equipment blank for most congeners (see laboratory deliverable method blank report) and detected results were qualified by the laboratory with the "B" qualifier. Detected results for these congeners that were less than the QL were qualified as "U" (as allowed by USEPA CLP National Functional Guidelines for Dioxin/Furan Data Review) to note results were considered blank influenced. The remaining blank criteria were met or no data qualification was needed (see Table 3).

Several samples were qualified by the laboratory with the "Q" qualifier. This laboratory qualifier indicated that the data did not meet criteria for identification. For these samples, the results were qualified as estimated ("J") to note that the result is the estimated maximum possible concentration (EMPC) and the identification is suspect.

1,2,3,7,8,9-HxCDD for samples PAD-2, PAD-5 NB-2, SB-2, POND-1; and 1,2,3,4,7,8-HxCDF for samples PAD-1, PAD-2, PAD-4, PAD-5, PAD-6, PAD-7, NB-1, NB-2, SB-2, POND-1 were qualified by the laboratory as "C" to denote coalition with another isomer and results for this congener in these samples were validated as "J" to note this QC deficiency.

2,3,7,8-TCDF results detected above the QL were confirmed on a separate column, except as noted below. The reported 2,3,7,8-TCDF result in PAD-4, PAD-4MS, and PAD-4MSD was reported from the confirmation column only. The PAD-4 result for 2,3,7,8-TCDF was qualified "X" by the laboratory to note this discrepancy (see laboratory narrative for clarification).

The Toxicity Equivalence (TEQ) was calculated from the product of detections above the detection limit for each congener and their individual Toxicity Equivalence Factor (TEF) value. Results for each sample location are presented on the attached Table 3. The TEQ for each sample location was calculated using estimated concentrations; therefore the final TEQ for each result was considered estimated and qualified as "J." TEF values were based on USEPA Region 3 TEF – World Health Organization June 2005 values. (See www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/usersguide.htm). TEF factors noted above reflect current research.

Field duplicate/sample results between PAD-1 and PAD-XX did not exhibited acceptable precision (RPD <35) and results were qualified as estimated "J" to note the QC discrepancy. Sample weights varied and sample QL and DLs were adjusted accordingly. No data transcription or calculation check errors were noted. No detections were reported above the AL.

Method 8330B – Nitroaromatics and Nitramines

Technical holding time and sample preservation criteria were met except where noted below. Initial calibration, calibration verification, blank, surrogate, MS/MSD, and LCS requirements were met, except where noted below. Additional data validation criteria that were evaluated are presented on the attached data validation report. Deviations from specific quality control criteria that were identified during the data review process are summarized below.

Tetryl did not meet the continuing calibration verification (CV) standard percent difference/drift requirement (±20%). Tetryl was not detected at or above the DL and QL in any sample and sample results for this analyte were validated and qualified "UJ" to note that the DL and QL were estimated due to the observed QC deficiency.

2-Amino-2,6-dinitrotoluene recovered low in the MS; however, the MSD recovered within criteria. The inconsistency with the MS and MSD results indicated a lack of sample homogeneity. Results for this analyte were qualified as estimated due to the observed QC deficiency. The remaining MS/MSD criteria were met or no data qualification was required.

Field duplicate/sample results between PAD-7 and PAD-X exhibited acceptable precision (RPD<35), where applicable. No data transcription or calculation check errors were noted. Sample weights varied and sample QL and DLs were adjusted accordingly. No detections were reported above the AL.

Method 8015C/3540C-Soxhlet Extraction – TPH (as Diesel Range Organics)

Technical holding time and sample preservation criteria were met. Initial calibration, calibration verification, blank, surrogate, MS/MSD, and LCS requirements were met, except where noted below. No deviations from specific quality control criteria were identified during the data review process.

Field duplicate/sample results between PAD-7 and PAD-X exhibited acceptable precision (RPD<35), where applicable. No data transcription or calculation check errors were noted. Sample weights varied and sample QL and DLs were adjusted accordingly. No detections were reported above the AL.

SW-846 Method 6850 – Perchlorate

Technical holding time and sample preservation criteria were met. The instrument performance check, instrument calibration, blank, surrogate, MS/MSD, LCS, and sample/field sample duplicate results were met, except where noted below. No deviations from specific QA/QC criteria were identified during the data review process.

Microbac stated that PAD-5 and PAD-6 contained standing water in the jars. Results for perchlorate were generally consistent with historical data and no data qualification was needed.

Field duplicate/sample results between PAD-7 and PAD-X exhibited acceptable precision (RDP<35), where applicable. No data transcription or calculation check errors were noted. Sample weights varied and sample QL and DLs were adjusted accordingly. No detections were reported above the AL.

SW-846 Method 6010C/3050B (soil)/3005A (water) – Inorganics (total)

Technical holding time and sample preservation criteria were met. Instrument calibration and calibration verification requirements were met. QL standards, blanks, interference check samples, MS/MSD, LCS and serial dilution samples were analyzed as required and acceptable criteria were met except where noted below. No data transcription or calculation check errors were noted. Deviations from quality control acceptance criteria that were identified during the data review process are summarized below.

The MS for PAD-4 recovered low for lead. Results for lead were qualified as estimated due to the low MS recovery. A post digestion spike was performed with acceptable recovery. The inconsistency with the sample and matrix spike indicated a lack of sample homogeneity. The remaining MS/MSD criteria were met.

Chromium and lead did not meet the serial dilution percent difference requirement (10%). Results for chromium and lead were qualified as estimate "J" to note the observed QC deficiency. The inconsistency with the sample and serial dilution indicated a lack of sample homogeneity.

Lead was detected above the action limit in PAD-6 and a verification event was performed on September 25, 2015 to confirm or refute the detection. The lead PAD-6 verification result and its duplicate result, received October 1, 2015, were less than the AL and the verification results were reported as the final result for PAD-6 (RPD 19).

Field duplicate/sample results exhibited acceptable precision (RPD <60), where applicable. No data transcription or calculation check errors were noted. Sample weights varied and sample QL and DLs were adjusted accordingly. No detections were reported above the AL.

SW-846 Method 7196A/3060A (Soil) – Hexavalent Chromium

Technical holding time and sample preservation criteria were met. Instrument calibration and calibration verification criteria were met. Blank, duplicate, and laboratory control sample

results were within control limits, except where noted below. The method of standard additions was used for the analysis of the extracts. No deviations from specific control limits and QA/QC controls were identified during the data review process.

The laboratory used batch QC (LCS/LCSD) to meet the MS/MSD criteria and no data qualifications were needed.

Field duplicate/sample results between PAD-7 and PAD-X exhibited acceptable precision, where applicable. No data transcription or calculation check errors were noted. Sample weights varied and sample QL and DLs were adjusted accordingly. No detections were reported above the AL.

SW-846 Method 7470A (Water)/7471A (Soil) – Mercury-total

Technical holding time and sample preservation criteria were met. Instrument calibration and calibration verification criteria were met. QL standards, blanks, MS/MSD, and LCS samples were analyzed as required and applicable criteria were met, except where noted below. No deviations from quality control acceptance criteria were identified during the data review process.

Field duplicate/sample results between PAD-7 and PAD-X exhibited acceptable precision, where applicable. No data transcription or calculation check errors were noted. Sample weights varied and sample QL and DLs were adjusted accordingly. No detections were reported above the AL.

SW-846 METHOD 8260C (GC/MS) VOLATILE ORGANIC DATA VALIDATION

Eurofins Lancaster Laboratories Environmental, Lancaster, PA; SDG: RAE42

Comments: *Volatile organic analysis uses a purge and trap system to remove volatile organic target analytes from a 5 gram sample (Method 5035A) or 5 ml (Method 5030C). Target analytes are separated and quantified using a capillary column gas chromatograph (GC)/mass spectrometer (MS).*

Does Laboratory analyte list correspond to analyte list requested? _X_ yes ___no

A. QC DELIVERABLES PACKAGE:

1.	Was the case narrative present/signed by a lab representative?	☑ YES ☐ NO
2.	Was the Chain of Custody present/signed by a lab representative?	☑ YES ☐ NO
3.	Were the sample results included for the sample locations?	☑ YES ☐ NO
4.	Were the required target analytes reported?	☑ YES ☐ NO
5.	Were the analyte RLs reported on sample summary sheets in agreement with the instrument specific MDL study?	☑ YES ☐ NO
6.	Were sample locations, analytes and QLs in agreement with the electronic deliverable (EDD)?	☑ YES ☐ NO

Comments: QC deliverables package requirements were met. Project reporting limits were supported by the low calibration standard.

B. QC HISTORY DOCUMENTATION CRITERIA:

1.	Was an instrument specific MDL study provided, which included DL and RL values for the target analytes?	☑ YES ☐ NO
2.	Was the calibration range specified?	☑ YES ☐ NO
3.	Was the initial demonstration of proficiency data provided for each target analyte?	☑ YES ☐ NO

Comments: QC history documentation provided as a revision.

C. TECHNICAL HOLDING TIME AND PRESERVATION CRITERIA:

1.	Was the 14-day sample collection to analysis holding time met?	☑ YES ☐ NO
2.	Were the samples received at ≤6ºC, zero headspace?	☑ YES ☐ NO
3.	Was the pH of each sample adjusted to < 2 with HCl? (water)	☑ YES ☐ NO

Comments: Applicable holding time and preservation criteria were met.

D. GC/MS INSTRUMENT PERFORMANCE (TUNING) CHECK CRITERIA:

1.	Was analysis of the instrument performance check solution performed at the beginning of each 12-hour period during which standards or samples were analyzed?	☑ YES ☐ NO
2.	Was there documentation of the injection of 5-50 ng bromofluorobenzene (BFB)?	☑ YES ☐ NO
3.	If the BFB spectra was taken from a calibration standard was the on-column amount 5-50 ng?	☑ NA ☐ YES ☐ NO

4. Were the ion abundance criteria met? ☑ YES ☐ NO
5. Were calibration, blank, and sample analyses performed within 12 hours of tuning? ☑ YES ☐ NO

Comments: Instrument performance check criteria were met.

E. INITIAL GC/MS CALIBRATION CRITERIA:

SW-846 Criteria:

1. Was the internal standard (IS) which was selected for target analyte RF calculation the IS which had the closest retention time? ☑ YES ☐ NO
2. Were the target analytes included in the ICAL? ☑ YES ☐ NO
3. Were any calibration levels removed from the curve that would negatively influence the data integrity? ☐ YES ☑ NO
4. Did the ICALs consist of a minimum of 5 calibration levels? ☑ YES ☐ NO
5. Was the lowest concentration calibration standard at or below the associated MCL? ☑ YES ☐ NO
6. Was the calibration curve developed using the same purge volume used for sample analysis? ☑ YES ☐ NO
7. Were 8260C minimum Relative Response Factor (RRF) criteria met? *Refer to Table 4- SW-846 Method 8260C (Rev3 2/06) for specific analyte RRFs* ☑ YES ☐ NO
8. Was each target analyte %RSD ≤ 20%? ☑ YES ☐ NO
9. Was the correlation coefficient >0.99 for target analytes with ≥20 % RSD? (*System recalibrated if >10% analytes fail above condition)* ☑ NA ☐ YES ☐ NO
10. Was an initial calibration verification (ICV) standard analyzed immediately following the ICAL? ☑ YES ☐ NO
11. Was the recovery within 70-130%? ☑ YES ☐ NO
12. Was the ICV standard prepared from a different source from the ICAL ? ☑ YES ☐ NO

Method Validation Performance Criteria:

1. Did target analytes and surrogates that have RSDs > 20% have ≥0.99 correlation coefficient or coefficient of determination? ☑ NA ☐ YES ☐ NO
2. For linear regression curves, was the concentration of the low calibration point within ±30% for detected analytes only? ☑ NA ☐ YES ☐ NO
3. For quadratic curves, was a minimum six standards used? ☑ NA ☐ YES ☐ NO

Comments: Initial calibration criteria were met.

F. CALIBRATION VERIFICATION CRITERIA:

SW-846 Criteria:

1. Was a calibration verification analyzed at the beginning of each 12-hour period following the analysis of the instrument performance check and prior to analysis of the method blank and samples? The calibration verification may be part of the ICAL or analyzed independently during another 12-hour analysis period. ☑ YES ☐ NO
2. Were 8260C minimum Relative Response Factor (RRF) criteria met? *Refer to Table 4- SW-846 Method 8260C (Rev3 2/06) for specific analyte RRFs* ☑ YES ☐ NO
3. Did the target analytes and system monitoring analytes (surrogates) have the % D within ± 20%? ☑ YES ☐ NO
   If "NO", list analytes that exceed these criteria:

Draper Aden Associates Contractual Requirements:

1. Did the target analytes and system monitoring analytes

(surrogates) have % Ds within ± 20%? ☑ YES ☐ NO

Comments: Calibration verification criteria.

G. BLANK CRITERIA:

1. Was a method blank analyzed after the calibration standards, prior to sample analysis, and once for every 12 hour period beginning with the injection of BFB? ☑ YES ☐ NO
2. Was a trip blank analyzed with this sample batch? ☑ YES ☐ NO
3. Were the trip blanks and method blanks interference free? ☑ YES ☐ NO
4. List target analytes detected in the blanks:
5. Was the blank concentration <5% of the MCL for the analyte? ☑ YES ☐ NO
6. Did any samples contain high concentrations of VOCs in excess of the linear range of the calibration curve? ☐ YES ☑ NO
7. Were one or more blanks analyzed following the high concentration sample to prevent cross contamination? ☑ NA ☐ YES ☐ NO

Comments: Blank criteria were met. An equipment blank was also analyzed (no detects).

H. SURROGATE CRITERIA:

SW-846 Criteria:

1. Were the following surrogates used? ☑ YES ☐ NO
   - dibromofluoromethane (68-110%)
   - 4-bromofluorobenzene (59-113%)
   - toluene-d_8 (84-138%)
   - 1,2-dichloroethane-d_4 (70-121%)
2. Were recoveries within the specified ranges? ☑ YES ☐ NO
   If "NO", corrective action is required. Flagging of the data as estimated is not acceptable until corrective action has been attempted.
3. Were samples with surrogates outside the QC window reanalyzed? *NA*

Comments: The surrogate criteria were met.

I. MATRIX SPIKE, MATRIX SPIKE DUPLICATE (MS/MSD) CRITERIA:

(MS/MSD Requirements - CLP Guidelines)

Analyte	*%R Soil*	*RPD Soil*
1,1-dichloroethene	59-172	22
trichloroethene	62-137	24
benzene	66-142	21
toluene	59-139	21
chlorobenzene	60-133	21

1. Was a matrix spike and matrix spike duplicate (MS/MSD) analyzed per sample batch or every 20 samples, whichever may occur first? ☑ YES ☐ NO
2. Did the MS/MSD spike contain additional target analytes? ☑ YES ☐ NO
3. Was the MS/MSD analyzed on the specific project matrix? ☑ YES ☐ NO
4. List MS target analytes not within recovery ranges: *See comment*
   Target analyte recoveries within CLP or laboratory control limits for soils
5. Was a LCS analyzed to address failed MS criteria? ☑ NA YES ☐ NO
6. Did the LCS for the failed MS analyte(s) fall within the recovery ranges and was the problem identified as matrix interference? ☑ NA YES ☐ NO

7. Were any analytes flagged as estimated concentrations? ☐ YES ☑ NO
8. List analytes flagged as estimated concentrations: *See comment.*
9. RPD ≤20 if not otherwise specified. ☑ YES ☐ NO

Comments: MS/MSD criteria were met. CLP guidelines for %R were used; if no CLP guidelines, laboratory control limits were used.

J. LABORATORY CONTROL SAMPLE (LCS) CRITERIA:

1. Was a LCS included in the sample analysis? ☑ YES ☐ NO
2. Did the LCS contain the required target analytes? ☑ YES ☐ NO
3. List the LCS acceptance criteria: 80-120% / 70-130% (poor purge analytes)
4. List the LCS analytes which were not within the specified ranges: *None*
5. Were any analytes flagged as estimated due to LCS criteria? ☐ YES ☑ NO

Comments: LCS criteria were met.

K. INTERNAL STANDARDS (IS) CRITERIA:

1. Were the following internal standards used? ☑ YES ☐ NO
   - fluorobenzene, chlorobenzene-d_5,1,4-dichlorobenzene-d_4
2. Were IS areas within - 50% to + 100% of the last CV? See comment
3. Were IS retention times within ± 30 seconds of the last CV? ☑ YES ☐ NO

Comments: Internal standard criteria were met or no data qualification was needed.

L. TARGET ANALYTE IDENTIFICATION:

1. Were the RRTs of the reported analytes within ± 0.06 RRT units of the standard RRT? ☑ YES ☐ NO
2. Check the sample spectra against the laboratory standard spectra to see that the following criteria were met:
   * Characteristic ions maximize in the same scan or within one scan of each other
   * Characteristic ions present in the standard spectra and the sample spectra for analytes detected above the RL
   * Relative intensities of ions between the standard and sample spectra within ± 30 %
3. Were the reported analytes confirmed? ☑ YES ☐ NO

Comments: Target analyte identification criteria were met.

M. TARGET ANALYTE QUANTITATION:

* If the %RSD of an analyte was 20% or less, then the average relative response factor should have been used for quantitation.
* If the %RSD of an analyte was greater than 20%, then the quantitation should have been based on a calibration curve using the first or higher order regression fit of the five calibration points.

1. Evaluate analytes detected above the RL whose %RSD was >20%: *none*
   a. Was the quantitation based on a linear regression fit? ☑ NA ☐ YES ☐ NO
   b. Was the curve forced through the origin? ☑ NA ☐ YES ☐ NO
2. Did the initial analysis of any sample have a target analyte concentration

that exceeded the initial calibration range? ☐ YES ☑ NO
-If so, was the sample reanalyzed at a higher dilution? ☑ NA ☐ YES ☐ NO

3. Were the analyte concentrations that were recorded on the raw sample quantitation reports accurately transferred to the sample summary sheets? ☑ YES ☐ NO

Comments: Target analyte quantitation criteria were met.

N. LIBRARY SEARCHES:

Comments: Library searches were not requested with this

O. CORRECTIVE ACTION TAKEN AND GENERAL COMMENTS:

Comments*:* The IDOCs remain on file at the laboratory. No other corrective action was taken.

SW-846 METHOD 8270D (GC/MS) SEMIVOLATILE ORGANIC DATA VALIDATION

Eurofins Lancaster Laboratories Environmental, Lancaster, PA, SDGs: RAE42

Semivolatile (a.k.a, base/neutral and acid extractables) analysis involves sample preparation using SW-846 Method 3550B (soil)/3510C (equipment blank-water) or 3546, as specified). The semivolatile extracts are concentrated through evaporation. Target analytes are separated and quantified using a capillary column gas chromatograph (GC)/mass spectrometer (MS).

Does Laboratory analyte list correspond to list requested? _X_ yes ___no

A. QC DELIVERABLES PACKAGE:

1. Was the case narrative present/signed by a lab representative? ☑ YES ☐ NO
2. Was the Chain of Custody present/signed by a lab representative? ☑ YES ☐ NO
3. Were the sample results included for the sample locations? ☑ YES ☐ NO
4. Did the laboratory report the required target analytes? ☑ YES ☐ NO
5. Were the analyte RLs reported on sample summary sheets supported by the instrument specific MDL study? ☑ YES ☐ NO

Comments: QC deliverables package requirements were met.

B. TECHNICAL HOLDING TIME AND PRESERVATION CRITERIA:

1. Was the 14-day sample collection to extraction holding time met? ☑ YES ☐ NO
2. Was the 40-day extraction to analysis holding time met? ☑ YES ☐ NO
3. Were the samples received at $\leq 6^{o}C$? ☑ YES ☐ NO

Comments: Sample collection to extraction/analysis holding times were met. Preservation criteria were met. Equipment blank (water) was extracted within 7 days and analyzed within 40 days from collection.

C. GC/MS INSTRUMENT PERFORMANCE CHECK CRITERIA:
(Tuning, Injection Port and Column Performance)

1. Was analysis of the instrument performance check solution performed at the beginning of each 12-hour period of standard and/or sample analysis? ☑ YES ☐ NO
2. Was there documentation of the injection of 50 ng of DFTPP? ☑ YES ☐ NO
3. Were the ion abundance criteria met? ☑ YES ☐ NO
4. Was the injection port inertness verified by analysis of 4,4'-DDT? (breakdown <20%) ☑ YES ☐ NO
   - If no, does associated data require qualification? ☑ NA ☐ YES ☐ NO
   - Was the injection port inertness check acceptable? ☐ NA ☑ YES ☐ NO
5. Was column performance checked through the analysis of peak tailing of pentachlorophenol (<3%) and benzidine (<5%)? ☑ YES ☐ NO
   - If no, does associated data require qualification? ☑ NA ☐ YES ☐ NO
   - Was column performance check acceptable? ☐ NA ☑ YES ☐ NO

Comments: Instrument performance check criteria were met.

D. INITIAL GC/MS CALIBRATION CRITERIA:

SW-846 Criteria:

1. Were the initial calibrations (ICAL) and any directly associated blanks and samples analyzed within 12-hours of the associated instrument performance (tune) check? ☑ YES ☐ NO
2. Were quantitation ions, used and listed on data, randomly checked against primary quantitation ions as required by Method 8270D and the RFP? ☑ YES ☐ NO
3. Were target analytes included in the ICAL? ☑ YES ☐ NO
4. Did the ICAL consist of a minimum of 5 calibration levels? ☑ YES ☐ NO
5. Was the lowest concentration calibration standard at or below the associated MCL, regulatory compliance, or action limit? ☑ YES ☐ NO
6. Were calibration standards dropped to meet calibration criteria? ☐ YES ☑ NO
7. Were 8270D minimum RRF criteria met?
   Relative Response Factor-range (RRF 0.010-0.900) ☑ YES ☐ NO
   **Refer to Table 4 of SW-846 Method 8270D (Rev4 2/07) for specific analyte RRFs*
8. Was each target analyte %RSD ≤ 20%? ☑ YES ☐ NO
9. Was the correlation coefficient or coefficient of determination >0.99 for target analytes with > 20% RSD? ☑ NA ☐ YES ☐ NO
   **System recalibrated if >10% analytes fail above condition*
10. Was an initial calibration verification (ICV) standard analyzed immediately following the ICAL? ☑ YES ☐ NO
11. Was the recovery within 70-130%? ☑ YES ☐ NO
12. Was ICV standard prepared from different source from ICAL? ☑ YES ☐ NO

Method Validation Performance Criteria:

1. Did target analytes and surrogates that have RSDs > 20% have ≥0.99 correlation coefficient or coefficient of determination? ☑ NA ☐ YES ☐ NO
2. For linear regression curves, was the concentration of the low calibration point within ±30%? ☑ NA ☐ YES ☐ NO
3. For quadratic curves, was a minimum six standards used? ☑ NA ☐ YES ☐ NO

Comments: Initial calibration criteria were met.

E. CALIBRATION VERIFICATION CRITERIA:

SW-846 Criteria:

1. Was a calibration verification analyzed at the beginning of each 12-hour period following the analysis of the instrument performance check and prior to analysis of the method blank and samples? The calibration verification may be part of the ICAL or run independently on another 12-hour analysis period. ☑ YES ☐ NO
2. Was each target analyte % difference/drift ≤ 20%? ☐ YES ☑ NO
   (Corrective action if >20% of analytes in ICAL fail above condition)
3. Were 8270D minimum RRF criteria met?
   Relative Response Factor-range (RRF 0.010-0.900) ☑ YES ☐ NO
   **Refer to Table 4 of SW-846 Method 8270D (Rev4 2/07) for specific analyte RRFs*

Method Validation Performance Criteria:

1. Did target analytes and system monitoring analytes (surrogates) have % Ds within ± 20.0%? ☐ YES ☑ NO
   If "NO," list analytes that exceed this criterion: see attached table

Comments: Calibration verification standard criteria were met except as noted.

F. BLANK CRITERIA:

1. Was a method/extraction blank analyzed on each GC/MS system used for sample analysis? ☑ YES ☐ NO
2. Was a trip blank analyzed with this sample batch? ☑ NA ☐ YES ☐ NO
3. Were the blank samples interference free? ☑ YES ☐ NO
4. List target analytes detected in the blanks: *None*

Comments: Blank criteria were met. An equipment blank was also analyzed.

G. SURROGATE CRITERIA:

1. Were the following surrogates used? ☑ YES ☐ NO
   - phenol – d_5 (24-113%)
   - 2-fluorophenol (25-121%)
   - 2,4,6-tribromophenol (19-122%)
   - nitrobenzene – d_5 (23-120%)
   - 2-fluorobiphenyl (30-115%)
   - p-terphenyl - d_{14} (18-137%)
2. Were recoveries within the specified ranges? ☑ YES ☐ NO
3. Were any two base/neutral or acid surrogates out of specification or did any one base/ neutral or acid extractable surrogate have a recovery of less than 10%? ☐ YES ☑ NO
   If yes, was reextraction/reanalysis performed to confirm that the non-compliance was due to matrix effects rather than laboratory deficiencies? ☑ NA ☐ YES ☐ NO

Comments: Surrogate criteria were met.

H. MATRIX SPIKE/ MATRIX SPIKE DUPLICATE (MS/MSD) CRITERIA:
(MS/MSD Requirements - CLP Guidelines)

Analyte	% R Soil	% RPD Soil
Phenol	26-90	35
2-Chlorophenol	25-102	50
N-Nitroso-di-n-propylamine	41-126	38
4-Chloro-3-methylphenol	26-103	33
Acenaphthene	31-137	19
4-Nitrophenol	11-114	50
2,4-Dinitrotoluene	28-89	47
Pyrene	35-142	36

1. Was a MS/MSD analyzed per sample batch? ☑ YES ☐ NO
2. Did the MS/MSD contain additional target analytes? ☑ YES ☐ NO
3. Was the MS/MSD analyzed on the specific project matrix? ☑ YES ☐ NO
4. MS/MSD acceptance range (RPD ≤30 if not otherwise specified): *See certificate of analysis*
5. Were any analytes qualified as estimated due to MS/MSD criteria? ☑ YES ☐ NO
   - If yes, and the LCS for the analyte(s) recovered within control limits, matrix interference is suspected.

Comments: MS/MSD criteria were met except where discussed in the data review summary above.

I. LABORATORY CONTROL SAMPLE (LCS) CRITERIA:

1. Was a LCS included in the sample analysis? ☑ YES ☐ NO
2. Did the LCS contain required target analytes? ☑ YES ☐ NO
3. List the LCS target analytes and laboratory recovery range:
   See semivolatile certificate of analysis.
4. Were any analytes qualified as estimated due to LCS criteria? ☐ YES ☑ NO

Comments: LCS criteria were met.

J. INTERNAL STANDARDS CRITERIA:

1. Were the following internal standards (IS) used? ☑ YES ☐ NO
   - 1,4-Dichlorobenzene-d_4
   - Naphthalene-d_8
   - Acenapththene-d_{10}
   - Phenanthrene-d_{10}
   - Chrysene-d_{12}
   - Perylene-d_{12}
2. Were IS areas within ± 50% of last CV? See comment
3. Were IS retention times within ± 30 seconds of last CV? ☑ YES ☐ NO

Comments: The internal standard criteria were met except where discussed.

K. TARGET ANALYTE IDENTIFICATION:

1. Were the RRTs of the reported analytes within ± 0.06 RRT units of the standard RRT? ☑ YES ☐ NO
2. Check the sample spectra against the laboratory standard spectra to see that the following criteria were met:
   * Characteristic ions maximize in the same scan or within one scan of each other
   * Characteristic ions present in the standard spectra present in the sample spectra for analytes detected above the RL
   * Relative intensities of the ions between the standard and sample spectra within ± 30%
3. Were the reported analytes confirmed? ☑ YES ☐ NO

Comments: Target analyte identification criteria were met.

L. TARGET ANALYTE QUANTITATION:

***** If the %RSD of an analyte was 20% or less, then the average relative response factor should have been used for quantitation.

* If the %RSD of an analyte was greater than 20%, then the quantitation should be based on a calibration curve using the first or higher order regression fit of the five calibration points (6 calibration points for 2nd order).

1. Evaluate analytes detected above the RL whose %RSD was >20%: *None*
   a. Was quantitation based on a linear regression fit? ☑ NA ☐ YES ☐ NO
   b. Was the curve forced through the origin? ☑ NA ☐ YES ☐ NO
2. Did the initial analysis of any sample have a concentration of a target analyte that exceeded the initial calibration range? ☑ YES ☐ NO
   -If so, was the sample reanalyzed at a higher dilution? ☑ YES ☐ NO

3. Were the analyte concentrations that were recorded on the raw sample quantitation reports accurately transferred to the sample summary sheets? ☑ YES ☐ NO

Comments: Target analyte quantitation criteria were met.

M. LIBRARY SEARCHES:

Comments: Library searches were not requested with this data set.

N. CORRECTIVE ACTION TAKEN AND GENERAL COMMENTS:

Comments: The IDOCs remain on file at the laboratory. No other corrective action was taken.

SW-846 METHOD 8290A (GC/MS) DIOXIN/FURAN DATA VALIDATION

TestAmerica, Knoxville, TN, SDGs: 240-54357-1

Comments: *Target analytes are separated and quantified using a high-resolution gas chromatography and low resolution/mass spectrometry (HRGC/HRMS) extracted with methylene chloride and toluene.*

A. QC DELIVERABLES PACKAGE:

- ☑ Case narrative and Chain of custody present and signed by a laboratory representative
- ☑ Sample results included for the sample locations
- ☑ Project specific target analytes reported at or above permit QL
- ☑ MDL study performed for target analytes and supports permit QL
- ☑ Initial demonstration of proficiency performed (on file at laboratory)
- ☑ Electronic data file reviewed

B. TECHNICAL HOLDING TIME AND PRESERVATION REVIEW CRITERIA:

- ☑ Holding time: extraction within 1 year; analysis within 45 days of extraction
- ☑ Amber glass used for collection (water);
- ☑ Glass used for collection (solid – amber recommended)
- ☑ Samples received at ≤6°C

C. GC/MS INSTRUMENT PERFORMANCE CHECK REVIEW CRITERIA:

- ☑ Instrument MS performance check solution analyzed at the beginning of each 12-hour period of standard and/or sample analysis (PFK)
- ☑ Window defining mixture (WDM) analyzed at the beginning of each 12-hour period of standard and/or sample analysis
- ☑ Isomer specificity check analyzed at the beginning of each 12-hour period of standard and/or sample analysis
- ☑ Instrument Stability Check at the beginning of each 12-hour period

D. INITIAL GC/MS CALIBRATION REVIEW CRITERIA:

- ☑ Target analytes included in the ICAL
- ☑ ICAL consisted of a minimum of 5 calibration standards (or more, as needed)
- ☑ Lowest concentration calibration standard at or below the associated MCL, regulatory compliance, action limit, or permit QL
- ☑ Analyte %RSD for RR ± 20%/I.S. %RSD for RRF ±35%
- ☑ Ion abundance ratios within control limits

E. CALIBRATION VERIFICATION REVIEW CRITERIA:

- ☑ Calibration verification standard analyzed at the beginning/end of each 12-hour period following the instrument performance check analyses and prior to the method blank and sample analysis
- ☑ Midpoint calibration standard
- ☑ Ion abundance ratios within control limits
- ☑ Analytes have %Difference/Drift for RR within ± 25.0% /I.S. %D for RRF ± 35% (See comment above)

F. BLANK REVIEW CRITERIA:

- ☑ Method/extraction blank analyzed on each extraction
- ☑ Method blank analyzed after calibration and before analytical samples and every 12 hours
- ☑ Interference free

G. LABORATORY CONTROL SAMPLE (LCS) REVIEW CRITERIA:

- ☑ LCS analyzed with target analytes
- ☑ LCS recovered within laboratory control limits

H. INTERNAL STANDARDS REVIEW CRITERIA:

- ☑ Internal standard added to each extract
- ☑ Internal standard recovery within 40-135%

I. MATRIX SPIKE/MATRIX SPIKE DUPLICATE:

- ☑ MS/MSD recovered within limits, %R within 31-154% range (see comment above)
- ☑ One MS/MSD or duplicate per batch of samples

J. TARGET ANALYTE IDENTIFICATION REVIEW CRITERIA:

- ☑ Results were consistent with historical data. New detections evaluated as follows:
- ☑ RRTs of the 2,3,7,8-compounds within RRT window acceptable limits
- ☑ RTs of the non-2,3,7,8-compounds within RT windows acceptable limits (WDM)
- ☑ Ion abundance ratios within criteria

K. TARGET ANALYTE QUANTITATION REVIEW CRITERIA:

- ☑ Results were consistent with historical data.
- ☑ 2,3,7,8-TCDF confirmation performed on detected results above the QL
- ☑ Results that exceed the initial calibration range were reanalyzed at a higher dilution.
- ☑ Analyte concentrations recorded on the sample quantitation reports were accurately transferred to the sample summary sheets (laboratory report).

L. REPORTING:

- ☑ 2,3,7,8-TCDF confirmation performed on results > QL; confirmation results reported
- ☑ Detected results requiring validation are presented on the attached data validation report
- ☑ Isomers reported to at or above the estimated detection limit (EDL)
- ☑ Results above the EDL were included in the TEQ calculation
- ☑ Estimated results were included in the TEQ calculation
- ☑ Non-detections (i.e., not detected above EDL) were not included in the TEQ calculation.
- ☑ Results reported to at or above the TEQ. TEQ calculations are attached.

SW-846 METHOD 8015C GAS CHROMATOGRAPHY TPH-DRO DATA VALIDATION

TestAmerica, North Canton, OH; JN: 240-54357-1

Comment: *Method 8015C involves a solvent extraction (SW-846 Method 3540C) followed by injection onto a capillary column gas chromatograph (GC). Target analytes are separated and quantified by GC and flame ionization detector.*

A. QC DELIVERABLES PACKAGE:

1.	Was the case narrative present/signed by a lab representative?	☑ YES ☐ NO
2.	Was the Chain of Custody present/signed by a lab representative?	☑ YES ☐ NO
3.	Were the sample results included for the sample locations?	☑ YES ☐ NO
4.	Did the laboratory report the project specific analyte list?	☑ YES ☐ NO
5.	Were QLs supported by the instrument specific MDL study?	☑ YES ☐ NO

Comments: QC deliverables requirements were met.

B. INSTRUMENT QC HISTORY DOCUMENTATION CRITERIA:

1.	Were instrument specific DLs for each target analyte provided?	☑ YES ☐ NO
2.	Were instrument specific QLs for each target analyte provided?	☑ YES ☐ NO
3.	Were the instrument specific check sample data provided?	☑ YES ☐ NO

Comments: QC history documentation criteria were met.

C. CHECK SAMPLE CRITERIA: *(Initial Demonstration of Capability)*

1.	Did the check sample contain the required target analytes?	☑ YES ☐ NO
2.	Were the check samples analyzed in quadruplicate?	☑ YES ☐ NO
3.	Were the average recoveries reported for the target analytes?	☑ YES ☐ NO

Comments: Check sample criteria were met.

D. TECHNICAL HOLDING TIME AND PRESERVATION CRITERIA:

1.	Was the 14-day sample collection to analysis holding time met?	☑ YES ☐ NO
2.	Were the samples received at $\leq 6^{o}C$?	☑ YES ☐ NO

Comments: Preservation and holding time criteria were met.

E. INITIAL GC CALIBRATION CRITERIA:

1.	Were target analytes included in the ICAL?	☑ YES ☐ NO
2.	Was a minimum five-point calibration performed prior to analyses?	☑ YES ☐ NO
3.	Were calibration standards dropped to meet calibration criteria?	☐ YES ☑ NO
4.	Was the lowest calibration standard at or below the QL MCL, regulatory compliance or action limit?	☑ YES ☐ NO
5.	Were Calibration Factors for the target analytes provided?	☑ YES ☐ NO
6.	Were the Relative Standard Deviation (RSD) for target analyte CFs <20% over the established working range?	☑ YES ☐ NO

7. Quantitation Method used by the laboratory: *Average CF*
8. List target analytes with a RSD >20% over the working range: *None*

Comments: Initial calibration criteria were met.

F. CALIBRATION VERIFICATION (CV) CRITERIA:

1. Was a CV standard performed once every 12-hours? ☑ YES ☐ NO
2. Did analyte responses have a % Difference (%D) within ± 15%? ☑ YES ☐ NO
3. Was a mid-concentration standard analyzed after 10 samples (recommended) and at the end of the analytical sequence (required)? ☑ YES ☐ NO
4. Were the target analytes included in the CV? ☑ YES ☐ NO

Comments: Calibration verification criteria were met.

G. BLANK CRITERIA:

1. Was a method blank analyzed? ☑ YES ☐ NO
2. Was a trip blank analyzed per analytical batch? ☑ NA ☐ YES ☐ NO
3. List the target analytes identified in the blanks: *None*

Comments: Blank criteria were met. An equipment blank was also analyzed.

H. SURROGATE CRITERIA:

1. Were the samples spiked with a surrogate? ☑ YES ☐ NO
2. Was the surrogate recovery within control limits? ☑ YES ☐ NO

Comments: Surrogate criteria were met. Surrogate added: o-Terphenyl 40-160% R.

I. RETENTION TIME (RT) CRITERIA:

1. Were the daily Retention Time (RT) windows reported (C10-C32)? ☑ YES ☐ NO
2. Were surrogate, MS/MSD/LCS RTs within the RT window? ☑ YES ☐ NO

Comments: Retention time criteria were met.

J. MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) CRITERIA:

1. Was a MS/MSD analyzed per sample batch or every 20 samples? ☑ YES ☐ NO
2. Did the MS/MSD contain target analytes? ☑ YES ☐ NO
3. Was the MS/MSD analyzed on the specific project matrix? ☐ YES ☑ NO
4. List the laboratory's % recovery ranges: *10%-124%*
5. List MS target analytes not within the laboratory recovery ranges: *See Comment*
6. Was a LCS standard analyzed to address failed MS criteria? ☑ YES ☐ NO
7. Did the LCS for the failed MS analyte fall within the acceptable recovery ranges and was the problem identified as matrix interference? ☑ YES ☐ NO
8. Were any analytes flagged as estimated concentrations? ☑ YES ☐ NO

Comments: MS/MSD criteria (batch) were met except as noted above.

K. LABORATORY CONTROL SAMPLE (LCS) CRITERIA:

1.	Was a LCS included in the sample analysis?	☑ YES ☐ NO
2.	Did the LCS contain the required target analytes?	☑ YES ☐ NO
3.	List the LCS analytes and the laboratory's acceptable recovery range: *52%-120%.*	
4.	List the LCS analyte not within the acceptable recovery range: *None.*	

Comments: LCS criteria were met.

L. TARGET ANALYTE IDENTIFICATION/QUANTIFICATION:

1.	Were the RRTs of the reported analytes within the RT windows?	☑ YES ☐ NO
2.	Were RT shifts observed when compared to the last CV?	☐ YES ☑ NO
3.	Were the reported analytes confirmed?	☑ YES ☐ NO
4.	Were the analyte concentrations which were recorded on the raw sample quantitation reports accurately transferred to the sample summary sheets?	☑ YES ☐ NO
5.	Were dilutions required?	☐ YES ☑ NO
6.	Result quantified according to Method 8000?	☑ YES ☐ NO

Comments: No target analytes were confirmed detected above action limit.

M. CORRECTIVE ACTION TAKEN AND GENERAL COMMENTS:

Comments: The IDOCs remain on file at the laboratory. No other corrective action was taken.

SW-846 METHOD 8330B (GC) ORGANIC DATA VALIDATION

Mircrobac Laboratories, Inc., Marietta, OH; SDG: L15080781, L15080782

A. QC DELIVERABLES PACKAGE:

- ☑ Case narrative present and signed by a laboratory representative
- ☑ Chain of Custody present and signed by a laboratory representative
- ☑ Sample results included for the sample locations
- ☑ Results provided for project specific analytes
- ☑ Quantitation limits (QLs) at permit or project required QL
- ☑ MDL study supports QL
- ☑ Initial demonstration of proficiency performed (on file at laboratory)

B. TECHNICAL HOLDING TIME AND PRESERVATION CRITERIA:

- ☑ 14-day sample collection to extraction holding time
- ☑ 40-day extraction to analysis holding time
- ☑ Samples received at $\leq 6^{o}C$
- ☑ Soil samples homogenized and air dried as per method

C. INITIAL CALIBRATION CRITERIA:

- ☑ Each analyte included in the ICAL
- ☑ ICAL consist of a minimum of 5 calibration levels
- ☑ A calibration standard at or below the associated MCL, regulatory compliance, or action limit
- ☑ Calibration levels removed from the curve should not negatively impact the data integrity
- ☑ Linear calibration model used. Correlation coefficient/coefficient of determination >0.99
- ☑ Initial calibration verification analyzed (70-130% Recovery)

D. CALIBRATION VERIFICATION (CV) CRITERIA:

- ☑ CV analyzed at the beginning of each day, after every 20 samples, and at end of the day
- ☑ Analytes have % Difference/Drift within ± 20%.

E. BLANK CRITERIA:

- ☑ Method blank analyzed
- ☑ Equipment blank analyzed
- ☑ Sample results evaluated for blank influence, where applicable.
- ☑ Blank analyzed after result exceeding calibration range, if required

F. SURROGATE CRITERIA:

- ☑ 1,2-dinitrobenzene (80-120% Recovery); Surrogate added to the samples

G. MATRIX SPIKE/ MATRIX SPIKE DUPLICATE (MS/MSD) / LABORATORY CONTROL SAMPLE (LCS) CRITERIA:

- ☑ MS/MSD and LCS analyzed for target analytes, where applicable
- ☑ MS/MSD and LCS in range, project specific analytes (laboratory criteria used)

H. REPORTING:

- ☑ Detected analytes or results requiring qualification are presented on the attached table(s).
- ☑ Laboratory reported results to at or above MDL.
- ☑ Results validated to the MDL.
- ☑ Confirmation by secondary column or diode array or mass spectral detection
- ☑ Soil sample results reported on dry weight (dry weight correction factor not applicable as entire soil sample is allowed to dry at room temperature before ground and passed through a 10-mesh sieve)

SW-846 METHOD 6850 (HPLC/MS) PERCHLORATE DATA VALIDATION

Mircrobac Laboratories, Inc., Marietta, OH; SDG: L15080781,

Comments: *Method 6850 - uses high performance liquid chromatography (HPLC) coupled with electrospray ionization (ESI) tandem mass spectrometry (MS) for the determination of perchlorate in aqueous and solid matrices.*

A. QC DELIVERABLES PACKAGE:

- ☑ Case narrative and Chain of custody present and signed by a laboratory representative
- ☑ Sample results included for the sample locations
- ☑ Project specific target analytes reported at or above the method detection limit (DL)
- ☑ MDL study performed for target analytes and supports QL
- ☑ Initial demonstration of proficiency performed (on file at laboratory)
- ☑ Electronic data file reviewed

B. TECHNICAL HOLDING TIME AND PRESERVATION REVIEW CRITERIA:

- ☑ Holding time: analyze water samples and extracts of solid samples within 28 days of collection or preparation, respectively
- ☑ Aqueous and soil samples collected and stored with headspace
- ☑ Aqueous samples filtered with 0.2 µm filter in the field –
- ☑ Soils samples: collected in glass amber jars, water samples collected in plastic and -Microbac confirmed filtering of supernatant with 0.45 micron filter prior to analysis

C. INSTUMENT TUNING:

- ☑ Laboratory stated instrument tuned as per manufacturer's instructions

D. INITIAL CALIBRATION REVIEW CRITERIA:

- ☑ Target analytes included in the ICAL
- ☑ ICAL consisted of a minimum of 6 calibration standards recommended (or more, as needed)
- ☑ Lowest concentration calibration standard at or below the associated MCL, regulatory compliance, action limit, or permit QL

E. INITIAL/ CONTINUING CALIBRATION VERIFICATION REVIEW CRITERIA:

- ☑ Initial calibration (ICV) prepared from different source from daily standards
- ☑ ICV analyzed immediately after the calibration standards
- ☑ Continuing calibration verification (CCV) standard analyzed at the prior to sample analysis; every 10 samples and at the end of the analytical run
- ☑ Intermediate calibration standard (alternating low to mid concentrations recommended)
- ☑ Initial and continuing verification % recoveries within 85-115%
- ☑ Area counts of internal standards (IS) in CCV must be between 50-150% of the average IS area counts in the standards from the associated ICAL.
- ☑ Low-level calibration verification (LLOQ) standard at or near the QL analyzed daily with recoveries 50-150%

F. BLANK REVIEW CRITERIA:

- ☑ Method blank analyzed on each extraction
- ☑ Method blank analyzed after calibration and before analytical samples
- ☑ Equipment blank analyzed

G. LABORATORY CONTROL SAMPLE (LCS) REVIEW CRITERIA:

- ☑ LCS analyzed with target analytes – matrix matched per batch of 20 samples
- ☑ Concentration near midpoint
- ☑ LCS recovered within limits (80-120%)

H. MATRIX SPIKE/MATRIX SPIKE DUPLICATE/DUPLICATE:

- ☑ MS/MSD recovered within limits, %R within range (80-120%-aqueous /70-130%-solids)
- ☑ One MS/MSD and/or duplicate per batch of 20 samples
- ☑ MS/MSD/DUP RDP is 15% / RPD is 50% for detections near low calibration standard

I. INTERNAL STANDARDS REVIEW CRITERIA:

- ☑ Internal standard added to each extract
- ☑ Area count 50-150% of area count of CCV
- ☑ RT of IS within ±30 seconds of CCV

J. TARGET ANALYTE IDENTIFICATION REVIEW CRITERIA:

- ☑ The calculated 83/85 area counts ratios within ±30% for average area counts of mid-range standard or area counts of CCVs analyzed with batch
- ☑ Retention time should not vary by more than 0.2 min

K. TARGET ANALYTE QUANTITATION REVIEW CRITERIA:

- ☑ Quantitation based on internal standard calibration

L. REPORTING:

- ☑ Detected results requiring validation are presented on the attached data validation report
- ☑ Soils/sediments reported on dry-weight basis
- ☑ Results reported within calibration range
- ☑ Results reported to detection limit

M. ADDITIONAL COMMENTS:

INORGANIC DATA EVALUATION FOR ICP SW-846 METHOD 6010C

Test America North Canton, North Canton, OH; JN: 240-54357-1
Preparation Method: 3005A (water)/3050B (soil)

"☑" denotes items reviewed. See Data Validation Summary for additional comments.

A. QC DOCUMENTION CRITERIA:
Data Quality Objective: Representativeness
- ☑ Chain of custody - including sampler signatures, date and time of sampling, sample ID, analysis requested; Custody transfers must be signed and dated
- ☑ Specific detection limits/quantitation limit (QLs) for target analytes
- ☑ Standard analyzed at or below the QL (LLQC), digested, 70-130% recovery, analyzed after MDL determination and as needed
- ☑ Passed single blind performance evaluation study within 12 months
- ☑ Passing MDL check sample
- ☑ Target analytes analyzed by requested method

B. INITIAL DEMONSTRATION OF CAPABILITY (IDOC) CRITERIA:
Data Quality Objective: Laboratory Method Sensitivity
- ☑ IDOC on file with the laboratory

C. TECHNICAL HOLDING TIME / PRESERVATION / DIGESTION METHOD:
Data Quality Objective: Representativeness
- ☑ 6 month holding time, pH <2 w/ $HNO_{3\ (water)}$
- ☑ Digestion method: 3005A (waters)/3050B (soils)

D. INSTRUMENT CALIBRATION CRITERIA:
Data Quality Objective: Laboratory Accuracy
- ☑ 1 calibration blank and at least 1 standard
  1 calibration blank and at least 3 standards (alternate calibration)
- ☑ Linear curve fit with correlation coefficient r ≥0.998

E. INITIAL / CONTINUING CALIBRATION VERIFICATION CRITERIA:
Data Quality Objective: Laboratory Accuracy
- ☑ ICV, analyzed prior to analysis (90-110% R)
- ☑ LLICV concentration at QL, prior to analysis (70-130% R)
- ☑ CCV prior to analysis, after every 10 samples, end of analysis, 90-110%
- ☑ LLCCV concentration at QL, prior to analysis, after each batch of 20 samples and end of analysis (70-130% R)

F. BLANK SAMPLE CRITERIA:
Data Quality Objective: Sensitivity/Instrument Drift/Contamination Evaluation
- Trip Blank (check only if analyzed)
- ☑ Equipment Blank (check only if analyzed)
- ☑ Method/Other Lab Blanks (check only if analyzed)
- ☑ Interference free
- ☑ CCB 10 sample frequency

G. INTERFERENCE CHECK SAMPLE (ICS) CRITERIA:
Data Quality Objective: Analytical Accuracy/Verification of Isobaric Interference Corrections
- ☑ ICS analyzed at beginning of analytical run (80-120% ICSAB Recovery)

H. MATRIX SPIKE DUPLICATE (MSD) CRITERIA:
Data Quality Objective: Method Precision in Sample Matrix
- ☑ All analytes, one MSD or sample duplicate per batch of 20 samples

- ☑ RPD ≤ 20 between MS and MSD or sample and duplicate results
- ☑ Recovery 75-125% for MSD

I. MATRIX SPIKE (MS) CRITERIA:

Data Quality Objective: Method Precision in Sample Matrix

- ☑ Recovery of MS analytes within 75-125%
- ☑ All analytes, spiked prior to digestion, one MS per batch of 20 samples
- ☑ Post digestion spike if MS/MSD recoveries fail (80-120 %R)

J. LABORATORY CONTROL SAMPLE (LCS) CRITERIA:

Data Quality Objective: Laboratory Method Accuracy, Laboratory Performance

- ☑ LCS for all analytes
- ☑ Recovery 80-120% all analytes
- ☑ Independent source for LCS standard

K. SERIAL DILUTION CRITERIA:

Data Quality Objective: Accuracy in Sample Matrix

- ☑ Similar matrix
- ☑ <10% Difference (applicable when concentration >10X QL)

L. SAMPLE RESULTS CRITERIA:

Data Quality Objective: n/a

- ☑ Results reported within ICP linear calibration range
- ☑ Results reported to detection limit

INORGANIC DATA EVALUATION FOR HEXAVALENT CHROMIUM (Cr VI) BY SW-METHOD 7196A

Test America North Canton, North Canton, OH; JN: 240-54357-1
Preparation Method: 3060A

"☑" denotes items reviewed. See Data Validation Summary for additional comments.

A. QC DOCUMENTATION CRITERIA:
- ☑ Specific detection limit / QLs for target analyte
- ☑ Passed single blind performance evaluation study within 12 months
- ☑ IDOC for analyst on file with laboratory

B. METHOD INFORMATION DOCUMENTATION:
- ☑ Cr (VI) extracted and analyzed by requested methods

C. TECHNICAL HOLDING TIME / PRESERVATION REQUIREMENTS:
- ☑ Cool ≤6° C; 30 days to extraction/7 days (268 hours) from extraction to analysis
- ☑ Collection and storage without the use of stainless steel devices

D. INSTRUMENT CALIBRATION CRITERIA:
- ☑ 1 calibration blank and at least 3 standards; correlation coefficient ≥ 0.995
- ☑ Color measurement at 540 nm.

E. INITIAL / CONTINUING CALIBRATION VALIDATION CRITERIA:
- ☑ 15 sample frequency/CCV/CCV/ICV Recovery within 90-110%

F. BLANK SAMPLE CRITERIA:
- ☑ Extraction blank per batch; Interference free
- ☑ Continuing calibration blank analysis every 15 samples

G. MATRIX DUPLICATE SAMPLE CRITERIA:
- ☑ One sample duplicate for every 20 samples
- ☑ RPD ≤20 between sample and duplicate results > 4X QL
  (Control limit +/- the laboratory QL used when the original and/or the duplicate sample is < four times the laboratory reporting limit.)

H. MATRIX SPIKE (MS) SAMPLE CRITERIA:
- ☑ %Recovery 85-115%

I. LABORATORY CONTROL SAMPLE (LCS) SAMPLE CRITERIA:
- ☑ One soluble and insoluble LCS analyzed for every 20 samples; LCS 80-120%

J. SAMPLE RESULTS / QUANTITAION CRITERIA:
- ☑ Method of Standard Addition (MSA) performed for each sample
- ☑ Correlation coefficient ≥ 0.995 for each sample analyzed by MSA
- ☑ Sample results reported within calibration range using MSA
- ☑ Sample results reported to the method detection limit
- ☑ Minimum 10% data calculation checks

Example MSA Calculation:
For each sample, calculate the linear regression and correlation coefficient of each spiked aliquot using:

$$y = m x + b$$

y = response
x = concentration of the standard
m = slope
b = y-intercept

Verify that the correlation coefficient (R) is ≥ 0.995

After calculating the slope and y-intercept for each sample, calculate the concentration of the sample results from MSA using:

$$x = b/m$$

Calculation of PAD-6 by Method of Standard (MSA) Addition:

Spike Add Conc. (mg/kg)	Absorbance
0	0.023
0.79	0.032
3.95	0.079
19.76	0.275
R	0.99967
slope (m)	0.01273
y-intercept (b)	0.02428
Sample Result (x): x = b/m (mg/kg) (wet weight)	1.907

INORGANIC DATA EVALUATION FOR MERCURY BY COLD VAPOR AA SW-846 METHOD 7470A (WATER)/7471A (SOIL)

Test America North Canton, North Canton, OH; JN: 240-54357-1

Does Laboratory analyte list correspond to analyte list requested? X yes ___no
"☑" denotes items reviewed. See Data Validation Summary for additional comments.

A. QC DOCUMENTATION CRITERIA:
- ☑ Specific detection limits/quantitation limit (QLs) for target analyte
- ☑ Standard analyzed at the QL (70-130% R)
- ☑ Passed single blind performance evaluation study within 12 months
- ☑ IDOC for analyst on file at laboratory

B. METHOD INFORMATION DOCUMENTATION:
- ☑ Mercury analyzed by requested method

C. TECHNICAL HOLDING TIME / PRESERVATION REQUIREMENTS:
- ☑ 28 day holding time
- ☑ (Water) Adjust pH <2 w/ HNO_3

D. INSTRUMENT CALIBRATION CRITERIA:
- ☑ 1 calibration blank and at least 3 standards
- ☑ Correlation coefficient for curve ≥ 0.995
- ☑ Instrument calibrated for every analytical sequence for every method

E. INITIAL / CONTINUING CALIBRATION VERIFICATION CRITERIA:
- ☑ 10 sample frequency for CCV
- ☑ Recovery within 80-120%

F. BLANK SAMPLE CRITERIA:
- N/A Trip Blank (check only if analyzed)
- ☑ Equipment Blank (check only if analyzed)
- ☑ Method/other laboratory blanks (check only if analyzed)
- ☑ Interference free

G. MATRIX SPIKE DUPLICATE (MSD) SAMPLE CRITERIA:
- ☑ One MSD or sample duplicate per batch of 20 samples
- ☑ RPD $\leq$20 between MS and MSD or sample and duplicate results
- ☑ Recovery 75-125% for MSD

H. MATRIX SPIKE (MS) SAMPLE CRITERIA:
- ☑ Recovery within 75-125% range
- ☑ One MS per batch of 20 samples
- ☑ Spike added prior to digestion

I. LABORATORY CONTROL SAMPLE (LCS) CRITERIA:
- ☑ LCS for mercury
- ☑ Recovery within 80-120%
- ☑ Independent source for LCS

J. SAMPLE RESULTS CRITERIA:

- ☑ Sample results reported within instrument calibration range
- ☑ Sample results reported to the method detection limit
- ☑ Minimum 10% data calculation checks

LIMITATIONS:

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Draper Aden Associates
Engineering ♦ Surveying ♦ Environmental Services

This Report has been prepared by:

Kathy Olsen – 02/09/2016

Kathy Olsen, Environmental Scientist Date:
2206 South Main Street, Blacksburg, Virginia 24060
540-552-0444, kolsen@daa.com, www.daa.com

This Report has been subjected to technical and quality review by:

KO for JFC – 02/09/2016

Janet C. Frazier, Project Manager Date:
2206 South Main Street, Blacksburg, Virginia 24060
540-552-0444, jfrazier@daa.com, www.daa.com

Draper Aden Associates
Engineering • Surveying • Environmental Services
www.daa.com

Data Validation Summary- 2015 Annual Soil Monitoring Event
Soil Monitoring Program for the Open Burning Ground (OBG)
Radford Army Ammunition Plant, Radford, Virginia
Permit for the Treatment of Hazardous Waste by Open Burning
EPA ID# VA1210020730

The Radford Army Ammunition Plant (RFAAP) is required to perform annual soil monitoring at the Open Burning Ground (OBG) located at the RFAAP in Radford, Virginia. Annual soil monitoring is required to be performed under their *Final Permit for the Treatment of Hazardous Waste by Open Burning* (effective date October 28, 2005; revised September 27, 2011) in accordance with Permit Attachment II.C – *Soil Monitoring Program for the Open Burning Ground (Modified June 12, 2014)* .

On behalf of BAE Systems, Ordnance Systems Inc. (BAE), Draper Aden Associates of Blacksburg, Virginia performed a comprehensive data validation of the analytical results for the August 13, 2015 annual soil monitoring event and subsequent September 25, 2015 soil verification event. The following information summarizes data validation for the event.

Permit Modifications

- The sampling frequency was reduced from semiannual to annual monitoring as part of the Class 3 Permit Modification approved by the Virginia Department of Environmental Quality (VDEQ) in correspondence dated September 27, 2011. Additionally, the September 27, 2011 Class 3 Permit Modification reduced the list of Constituents of Potential Concern (COPCs) for the Unit and added hexavalent chromium and perchlorate.

- A Class 1 Permit Modification was approved on June 12, 2014 for the Unit and updated the permit Action Levels (AL).

Sample Collection/Analytical Services

Draper Aden Associates, of Blacksburg, Virginia, collected soil samples from sample locations PAD-1 through PAD-8, NB-1, NB-2, SB-1, SB-2, BERM-1 and POND-1.

The samples were sent via overnight courier to Eurofins Lancaster Laboratories Environmental, Inc. (ELLE), of Lancaster, Pennsylvania; to TestAmerica North Canton (TestAmerica), of North Canton, Ohio; and to Microbac Laboratories, Ohio Valley Division (Microbac), of Marietta, Ohio. Samples were analyzed for target analytes listed on Table 1 in Attachment II.C-23 and 24 of the operating permit. (See table below - *Summary of OBG Soil Sample Locations and Required Analytical Methods).* Results were generated from a laboratory accredited under the Virginia Environmental Laboratory Accreditation Program (VELAP). Samples were analyzed for volatiles, semivolatiles, explosives, perchlorate, inorganics, hexavalent chromium, mercury, total petroleum hydrocarbons - diesel range organics, and dioxin/furans by SW-846 Methods 8260C/5035A, 8270D, 8330B, 6850, 6010C, 7196A, 7471A/7470A, 8015C and 8290A,

respectively (see chain of custody for analyte lists). As well, samples were analyzed for total residue as percent solids by MCAWW 160.3 MOD.1.

Sample PAD-7 was selected as the blind field sample duplicate for the analyses except dioxin analysis. PAD-1 was selected as the blind field sample duplicate for the dioxin analysis based on historical detections. PAD-4 was selected as the project specific matrix spike and matrix spike duplicate (MS/MSD) sample for each method of analysis. The blind field sample duplicate identification was PAD-X for PAD-7 and PAD-XX for PAD-1. A trip blank (water sample) was submitted for volatile organic analysis (Method 8260C). An equipment blank (water sample) was submitted for all analyses.

ELLE performed the Methods 8260C and 8270D analyses. TestAmerica performed the Methods 8290A, 8015C, 6010C, 7196A, and 7471A/7470A analyses. Microbac performed the Method 6850 analysis and 8330B analyses. On behalf of BAE, each laboratory submitted results to Draper Aden Associates in a final certificate of analysis, which included sample analytical results as well as relevant documentation to validate and verify the results.

Receipt of Monitoring Event Data

The original certificate of analysis for the event was received on September 10, 2015.

Summary of OBG Soil Sample Locations and Required Analytical Methods

SW-846 Method/ SDG	***Sample Location***													
	PAD-1	***PAD-2***	***PAD-3***	***PAD-4***	***PAD-5***	***PAD-6***	***PAD-7***	***PAD-8***	***NB-1***	***NB-2***	***SB-1***	***SB-2***	***BERM-1***	***POND-1***
8260C/5035A Volatiles SDG: RAE42	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*
8270D Semivolatiles SDG: RAE42	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*
8330B Explosives and Nitroglycerin SDG: L15080781, L15080782	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*
6850 Perchlorate SDG: L15080781	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*						
6010C Inorganics SDGs: 240-54357-1 240-55863-1(verification)	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*
7196A Hexavalent Chromium SDG: 240-54357-1	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*						
7471A Mercury SDG: 240-54357-1	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*						
8015C –TPH-DRO SDG: 240-54357-1	*X*			*X*			*X*							
8290A Dioxins/Furans SDGs: 240-54357-1	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*

See Table 1- Attachment II.C-23-24 (June 2014) of the operating permit for specific monitoring parameters for each sample location.
PAD-X - blind field duplicate for PAD-7, all analyses except dioxin analysis.
PAD-XX - blind field duplicate for PAD-1, dioxin analysis only.
Equipment Blank – all analyses

The chain of custody and permit required target analytes are provided as an attachment.

Data Analysis and Validation

Samples were analyzed by *SW-846 Method requirements (Test Methods for Evaluating Solid Wastes - Physical and Chemical Methods, USEPA SW-846, 3rd edition - Final Update I, II/IIA, III and subsequent updates).* All data were evaluated in general accordance with:

- *Test Methods for Evaluating Solid Wastes - Physical and Chemical Methods*, USEPA SW-846, 3rd edition - Final Update I, II/IIA, III and subsequent updates).
- *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*, June 2008, where applicable.
- *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review*, January 2010.
- *USEPA Contract Laboratory Program National Functional Guidelines for Chlorinated Dioxin/Furan Data Review*, September 2011.

Data validation included recalculation of 10% of the data, except where noted. A summary table of data validation results and a data validation report for each analytical method are provided as an attachment (see CD ROM).

Reporting of Results

As required by the permit modification, results were reported at or above the method detection limit (DL) for the target analytes (constituents) listed on Table 1 in Attachment II.C-23 and 24 of the operating permit. Detections less than the laboratory QL were validated and qualified as "J" to note the results were estimated concentrations. Laboratory QLs and DLs were equal to or less than the Reporting Limit (RL) noted on Table 1, except where noted. RLs, QLs and DLs were less than the permit AL except where noted below. Actual QLs vary due to soil factors or dilutions. Results were reported on a dry weight basis or as required by the method.

For 8270D, 3,3-dimethylbenzidine was not detected at or above the DL or QL and the 3,3-dimethylbenzidine results were reported with an "A" qualifier to note the QL and DL were above the AL.

For Method 8290A Dioxin/Furan reporting, the laboratory reported results on a dry weight basis to the estimated detection limit (EDL) for each congener. Results between the EDL and sample specific reporting limit were flagged "J" to denote results were estimated concentrations. Detections above the EDL were used in the 2,3,7,8-TCDD Toxicity Equivalent Quotient (TEQ) calculation. TEQ calculations are presented in Table 3, submitted as an attachment.

The ALs listed in the summary tables reflect the June 2014 revised ALs.

Special Project Notes

- For Method 8270D, VDEQ requested notification if 3,3-dimethylbenzidine is detected less than the QL, since the QL for this analyte, 1 mg/kg, and detection limit (DL), 0.5 mg/kg are above the AL, 0.16 mg/kg. For this event, 3,3-dimethylbenzidine was not detected at or above the detection limit. 3,3-Dimethylbenzidine will continue to be monitored with future events.

- For 8270D, PAD-6 was diluted prior to analysis due to matrix interference. Similar interferences for this sample were noted in previous events. The diluted sample was analyzed and the resulting laboratory QLs and DLs for the target analytes were adjusted by the dilution factor. For several analytes, the adjusted QLs and/or DLs were greater than the RL. However, except for 3,3'-dimethylbenzidine noted above, the adjusted laboratory QL and DL were below the AL for each target analyte and no data qualification was required.

Summary of Results

- No results were rejected.

Verification Events

Verification monitoring was conducted on September 25, 2015 to confirm or refute the initial results for lead in PAD-6. The verification sample result was less than the AL and no additional action was required.

Accuracy

Accuracy was evaluated using the percent recovery obtained from the laboratory control sample (LCS), matrix spike and matrix spike duplicate (MS/MSD) samples, and the surrogate spike. LCS and MS/MSD recoveries were within the acceptance criteria, except where noted on the attached data validation report.

Precision

Precision was evaluated using the relative percent difference (RPD) data obtained from the MS/MSD and sample/blind field duplicate results. For metals, a control limit of 60 RPD was used due to expected soil variability. For all other blind field duplicate/sample results, the control limit of <35 RPD and 2x the QL was used, where applicable.

MS/MSD RPD criteria were within acceptance criteria, except where noted on the attached data validation report.

Completeness

Completeness was evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data. Valid analytical data are results not qualified as rejected.

All results were accepted. The completeness for the data set is 100%.

Representativeness

Representativeness: data collected at the site met accuracy and precision requirements, except where noted. Samples were collected using standardized procedures and at specified sample locations. Samples were analyzed using standardized, accepted analytical methods using traceable standard to ensure that accurate and reproducible data were generated. None of the data required qualification for exceeding holding time requirements. Data from this soil monitoring event were considered representative.

Comparability

Comparability: data collected at the site met comparability requirements. Samples were collected using standardized procedures and at specified sample locations. Samples were analyzed using standardized, accepted analytical methods using traceable standard to ensure that accurate and reproducible data were generated. Data has been presented using standardized units for evaluation from event to event. Data from this soil monitoring event were considered comparable.

This Report has been prepared by:

Kathy Olsen – 02/09/2016

Kathy Olsen
Environmental Scientist
2206 South Main Street
Blacksburg, Virginia 24060
540-552-0444
Kolsen@daa.com
www.daa.com

Date:

This Report has been subjected to technical and quality review by:

Ko for JCF – 02/09/2016

Janet C. Frazier
Project Manager
Project Data Quality Assurance Officer
2206 South Main Street
Blacksburg, Virginia 24060
540-552-0444
Jfrazier@daa.com
www.daa.com

Date:

Draper Aden Associates
Engineering ◆ Surveying ◆ Environmental Services

Sample/Blind Field Duplicate Results Greater Than the Quantitation Limit

Facility: HWMU 13/OBG Soil Monitoring Event: 8/13/2015

Analyte	Sample ID	Laboratory Result	Q	Validated Result	Q	LAB QL	RL	Unit	Validation Notes
Method: 6010C									
Arsenic	PAD-7	1.8		1.8		1.5	1	mg/kg	No action taken.
	PAD-X	2		2		1.4	1	mg/kg	No action taken. Field duplicate for PAD-7. RPD = 10.5
Barium	PAD-7	92		92		19	20	mg/kg	No action taken.
	PAD-X	96		96		19	20	mg/kg	No action taken. Field duplicate for PAD-7. RPD = 4.2
Chromium	PAD-7	12		12	J	0.97	1	mg/kg	Serial dilution %D > 10 (15%).
	PAD-X	12		12	J	0.94	1	mg/kg	Serial dilution %D > 10 (15%). Field duplicate for PAD-7. RPD = 0
Lead	PAD-7	97		97	J	0.97	0.3	mg/kg	Serial dilution %D > 10 (17%). MS/MSD recovered low (43%).
	PAD-X	91		91	J	0.94	0.3	mg/kg	Serial dilution %D > 10 (17%). MS/MSD recovered low (43%). Field duplicate for PAD-7. RPD = 6.4.
Method: 8270D									
Di-n-butyl phthalate	PAD-7	0.53		0.53	J	0.18	0.33	mg/kg	MS/MSD recovered low (21/29%). RPD for field duplicate (PAD-X) = 142.
	PAD-X	3.1		3.1	J	0.18	0.33	mg/kg	MS/MSD recovered low (21/29%). Field duplicate for PAD-7. RPD = 142.
Method: 8330B									
Nitroglycerin	PAD-7	10.2		10.2		1.25	2.5	mg/kg	No action taken.
	PAD-X	11.3		11.3		1.26	2.5	mg/kg	No action taken. Field duplicate for PAD-7. RPD = 10.2

Definitions:

Data Validation Qualifiers:

QL Denotes Lab quantitation limit**.** **Q** Denotes data qualifier. **RL** Denotes reporting limit (obtained from permit modification – Table 1 Attachment II.C-23-24, updated June 2014, Class 1 permit modification). RLs are equal to or greater than actual laboratory QLs, except where noted in the data validation report. **J** Denotes analyte result is estimated.

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF GENERAL SERVICES
DIVISION OF CONSOLIDATED LABORATORY SERVICES

Certifies that

VA Laboratory ID#: 460182
Eurofins Lancaster Laboratories Environmental, LLC

2425 New Holland Pike
Lancaster, PA 17601

Owner: EUROFINS SCIENTIFIC
Responsible Official: DUANE LUCKENBILL

Having met the requirements of 1 VAC 30-46
and the National Environmental Laboratory Accreditation Conference 2003 Standard
is hereby approved as an

Accredited Laboratory

As more fully described in the attached Scope of Accreditation

BOD - sm5210B
checked. JCF

Effective Date: **June 15, 2015**
Expiration Date: **June 14, 2016**
Certificate # 7815

Denise M. Toney

Denise M. Toney, Ph.D., HCLD
DGS Deputy Director for Laboratories

Continued accreditation status depends on successful ongoing participation in the program.
Certificate to be conspicuously displayed at the laboratory.
Not valid unless accompanied by a valid Virginia Environmental Laboratory Accreditation Program (VELAP) Scope of Accreditation.
Customers are urged to verify the laboratory's current accreditation status.

Certificate Not Transferable

Surrender Upon Revocation

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 7815

Eurofins Lancaster Laboratories Environmental, LLC
2425 New Holland Pike
Lancaster, PA 17601

Virginia Laboratory ID: 460182
Effective Date: June 15, 2015
Expiration Date: June 14, 2016

AIR

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA TO-14A 2nd Ed.	1,1,1-TRICHLOROETHANE	LA DEQ	EPA TO-14A 2nd Ed.	1,1,2,2-TETRACHLOROETHANE	LA DEQ
EPA TO-14A 2nd Ed.	1,1,2-TRICHLORO-1,2,2-TRIFLUORO ETHANE (FREON 113)	LA DEQ	EPA TO-14A 2nd Ed.	1,1,2-TRICHLOROETHANE	LA DEQ
EPA TO-14A 2nd Ed.	1,1-DICHLOROETHANE	LA DEQ	EPA TO-14A 2nd Ed.	1,1-DICHLOROETHYLENE	LA DEQ
EPA TO-14A 2nd Ed.	1,2,4-TRICHLOROBENZENE	LA DEQ	EPA TO-14A 2nd Ed.	1,2,4-TRIMETHYLBENZENE	LA DEQ
EPA TO-14A 2nd Ed.	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	LA DEQ	EPA TO-14A 2nd Ed.	1,2-DICHLOROBENZENE	LA DEQ
EPA TO-14A 2nd Ed.	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	LA DEQ	EPA TO-14A 2nd Ed.	1,2-DICHLOROPROPANE	LA DEQ
EPA TO-14A 2nd Ed.	1,3,5-TRIMETHYLBENZENE	LA DEQ	EPA TO-14A 2nd Ed.	1,3-DICHLOROBENZENE	LA DEQ
EPA TO-14A 2nd Ed.	1,4-DICHLOROBENZENE	LA DEQ	EPA TO-14A 2nd Ed.	2-BUTANONE (METHYL ETHYL KETONE, MEK)	LA DEQ
EPA TO-14A 2nd Ed.	BENZENE	LA DEQ	EPA TO-14A 2nd Ed.	BROMOFORM	LA DEQ
EPA TO-14A 2nd Ed.	CARBON TETRACHLORIDE	LA DEQ	EPA TO-14A 2nd Ed.	CHLOROBENZENE	LA DEQ
EPA TO-14A 2nd Ed.	CHLOROETHANE (ETHYL CHLORIDE)	LA DEQ	EPA TO-14A 2nd Ed.	CHLOROFORM	LA DEQ
EPA TO-14A 2nd Ed.	CIS-1,2-DICHLOROETHYLENE	LA DEQ	EPA TO-14A 2nd Ed.	CIS-1,3-DICHLOROPROPENE	LA DEQ
EPA TO-14A 2nd Ed.	ETHYLBENZENE	LA DEQ	EPA TO-14A 2nd Ed.	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	LA DEQ
EPA TO-14A 2nd Ed.	M+P-XYLENE	LA DEQ	EPA TO-14A 2nd Ed.	METHYL BROMIDE (BROMOMETHANE)	LA DEQ
EPA TO-14A 2nd Ed.	METHYL CHLORIDE (CHLOROMETHANE)	LA DEQ	EPA TO-14A 2nd Ed.	METHYLENE CHLORIDE (DICHLOROMETHANE)	LA DEQ
EPA TO-14A 2nd Ed.	O-XYLENE	LA DEQ	EPA TO-14A 2nd Ed.	STYRENE	LA DEQ
EPA TO-14A 2nd Ed.	TETRACHLOROETHENE (PERCHLOROETHENE)	LA DEQ	EPA TO-14A 2nd Ed.	TOLUENE	LA DEQ
EPA TO-14A 2nd Ed.	TRANS-1,2-DICHLOROETHENE	LA DEQ	EPA TO-14A 2nd Ed.	TRANS-1,3-DICHLOROPROPENE	LA DEQ
EPA TO-14A 2nd Ed.	TRICHLOROETHENE (TRICHLOROETHYLENE)	LA DEQ	EPA TO-14A 2nd Ed.	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	LA DEQ
EPA TO-14A 2nd Ed.	VINYL CHLORIDE	LA DEQ	EPA TO-14A 2nd Ed. - EXTENDED	4-METHYL-2-PENTANONE (MIBK)	LA DEQ
EPA TO-14A 2nd Ed. - EXTENDED	BROMODICHLOROMETHANE	LA DEQ	EPA TO-14A 2nd Ed. - EXTENDED	CARBON DISULFIDE	LA DEQ
EPA TO-14A 2nd Ed. - EXTENDED	METHYL TERT-BUTYL ETHER (MTBE)	LA DEQ	EPA TO-14A 2nd Ed. - EXTENDED	XYLENE (TOTAL)	LA DEQ
EPA TO-15 2nd Ed.	1,1,1-TRICHLOROETHANE	LA DEQ	EPA TO-15 2nd Ed.	1,1,2,2-TETRACHLOROETHANE	LA DEQ
EPA TO-15 2nd Ed.	1,1,2-TRICHLORO-1,2,2-TRIFLUORO ETHANE (FREON 113)	LA DEQ	EPA TO-15 2nd Ed.	1,1,2-TRICHLOROETHANE	LA DEQ
EPA TO-15 2nd Ed.	1,1-DICHLOROETHANE	LA DEQ	EPA TO-15 2nd Ed.	1,1-DICHLOROETHYLENE	LA DEQ
EPA TO-15 2nd Ed.	1,2,4-TRICHLOROBENZENE	LA DEQ	EPA TO-15 2nd Ed.	1,2,4-TRIMETHYLBENZENE	LA DEQ
EPA TO-15 2nd Ed.	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	LA DEQ	EPA TO-15 2nd Ed.	1,2-DICHLOROBENZENE	LA DEQ
EPA TO-15 2nd Ed.	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	LA DEQ	EPA TO-15 2nd Ed.	1,2-DICHLOROPROPANE	LA DEQ
EPA TO-15 2nd Ed.	1,3,5-TRIMETHYLBENZENE	LA DEQ	EPA TO-15 2nd Ed.	1,3-BUTADIENE	LA DEQ

Commonwealth of Virginia

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2425 New Holland Pike
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Virginia Laboratory ID: 460182
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AIR

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA TO-15 2nd Ed.	1,3-DICHLOROBENZENE	LA DEQ	EPA TO-15 2nd Ed.	1,4-DICHLOROBENZENE	LA DEQ
EPA TO-15 2nd Ed.	1,4-DIOXANE (1,4-DIETHYLENEOXIDE)	LA DEQ	EPA TO-15 2nd Ed.	2-BUTANONE (METHYL ETHYL KETONE, MEK)	LA DEQ
EPA TO-15 2nd Ed.	4-METHYL-2-PENTANONE (MIBK)	LA DEQ	EPA TO-15 2nd Ed.	ACETONITRILE	LA DEQ
EPA TO-15 2nd Ed.	ACROLEIN (PROPENAL)	LA DEQ	EPA TO-15 2nd Ed.	ACRYLONITRILE	LA DEQ
EPA TO-15 2nd Ed.	ALLYL CHLORIDE (3-CHLOROPROPENE)	LA DEQ	EPA TO-15 2nd Ed.	BENZENE	LA DEQ
EPA TO-15 2nd Ed.	BROMODICHLOROMETHANE	LA DEQ	EPA TO-15 2nd Ed.	BROMOFORM	LA DEQ
EPA TO-15 2nd Ed.	CARBON DISULFIDE	LA DEQ	EPA TO-15 2nd Ed.	CARBON TETRACHLORIDE	LA DEQ
EPA TO-15 2nd Ed.	CHLOROBENZENE	LA DEQ	EPA TO-15 2nd Ed.	CHLOROETHANE (ETHYL CHLORIDE)	LA DEQ
EPA TO-15 2nd Ed.	CHLOROFORM	LA DEQ	EPA TO-15 2nd Ed.	CIS-1,2-DICHLOROETHYLENE	LA DEQ
EPA TO-15 2nd Ed.	CIS-1,3-DICHLOROPROPENE	LA DEQ	EPA TO-15 2nd Ed.	CYCLOHEXANE	LA DEQ
EPA TO-15 2nd Ed.	ETHYL ACRYLATE	LA DEQ	EPA TO-15 2nd Ed.	ETHYLBENZENE	LA DEQ
EPA TO-15 2nd Ed.	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	LA DEQ	EPA TO-15 2nd Ed.	HEXACHLOROETHANE	LA DEQ
EPA TO-15 2nd Ed.	IODOMETHANE (METHYL IODIDE)	LA DEQ	EPA TO-15 2nd Ed.	ISOPROPYLBENZENE	LA DEQ
EPA TO-15 2nd Ed.	M+P-XYLENE	LA DEQ	EPA TO-15 2nd Ed.	METHYL BROMIDE (BROMOMETHANE)	LA DEQ
EPA TO-15 2nd Ed.	METHYL CHLORIDE (CHLOROMETHANE)	LA DEQ	EPA TO-15 2nd Ed.	METHYL METHACRYLATE	LA DEQ
EPA TO-15 2nd Ed.	METHYL TERT-BUTYL ETHER (MTBE)	LA DEQ	EPA TO-15 2nd Ed.	METHYLENE CHLORIDE (DICHLOROMETHANE)	LA DEQ
EPA TO-15 2nd Ed.	O-XYLENE	LA DEQ	EPA TO-15 2nd Ed.	PROPYLENE	LA DEQ
EPA TO-15 2nd Ed.	STYRENE	LA DEQ	EPA TO-15 2nd Ed.	TETRACHLOROETHENE (PERCHLOROETHENE)	LA DEQ
EPA TO-15 2nd Ed.	TOLUENE	LA DEQ	EPA TO-15 2nd Ed.	TRANS-1,2-DICHLOROETHENE	LA DEQ
EPA TO-15 2nd Ed.	TRANS-1,3-DICHLOROPROPENE	LA DEQ	EPA TO-15 2nd Ed.	TRICHLOROETHENE (TRICHLOROETHYLENE)	LA DEQ
EPA TO-15 2nd Ed.	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	LA DEQ	EPA TO-15 2nd Ed.	VINYL ACETATE	LA DEQ
EPA TO-15 2nd Ed.	VINYL CHLORIDE	LA DEQ	EPA TO-15 2nd Ed.	XYLENE (TOTAL)	LA DEQ
EPA TO-15 2nd Ed. - EXTENDED	2-CHLOROTOLUENE	LA DEQ	EPA TO-15 2nd Ed. - EXTENDED	2-HEXANONE	LA DEQ
EPA TO-15 2nd Ed. - EXTENDED	4-ETHYLTOLUENE	LA DEQ	EPA TO-15 2nd Ed. - EXTENDED	ACETONE	LA DEQ
EPA TO-15 2nd Ed. - EXTENDED	CHLORODIFLUOROMETHANE (FREON-22)	LA DEQ	EPA TO-15 2nd Ed. - EXTENDED	NAPHTHALENE	LA DEQ
EPA TO-15 2nd Ed. - EXTENDED	TERT-BUTYL ALCOHOL	LA DEQ			

DRINKING WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 200.7 REV 4.4	ALUMINUM	PA	EPA 200.7 REV 4.4	BARIUM	PA
EPA 200.7 REV 4.4	BERYLLIUM	PA			

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DRINKING WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 200.7 REV 4.4	CADMIUM	PA	EPA 200.7 REV 4.4	CALCIUM	PA
EPA 200.7 REV 4.4	CHROMIUM	PA	EPA 200.7 REV 4.4	COPPER	PA
EPA 200.7 REV 4.4	IRON	PA	EPA 200.7 REV 4.4	MAGNESIUM	PA
EPA 200.7 REV 4.4	MANGANESE	PA	EPA 200.7 REV 4.4	NICKEL	PA
EPA 200.7 REV 4.4	SILVER	PA	EPA 200.7 REV 4.4	SODIUM	PA
EPA 200.7 REV 4.4	ZINC	PA	EPA 200.8 REV 5.4	ANTIMONY	PA
EPA 200.8 REV 5.4	ARSENIC	PA	EPA 200.8 REV 5.4	BERYLLIUM	PA
EPA 200.8 REV 5.4	CADMIUM	PA	EPA 200.8 REV 5.4	CHROMIUM	PA
EPA 200.8 REV 5.4	COPPER	PA	EPA 200.8 REV 5.4	LEAD	PA
EPA 200.8 REV 5.4	NICKEL	PA	EPA 200.8 REV 5.4	SELENIUM	PA
EPA 200.8 REV 5.4	THALLIUM	PA	EPA 245.1 REV 3	MERCURY	PA
EPA 300.0 REV 2.1	CHLORIDE	PA	EPA 300.0 REV 2.1	FLUORIDE	PA
EPA 300.0 REV 2.1	NITRATE AS N	PA	EPA 300.0 REV 2.1	NITRITE AS N	PA
EPA 300.0 REV 2.1	SULFATE	PA	EPA 335.4 REV 1.0	CYANIDE	PA
EPA 353.2 REV 2	NITRATE AS N	PA	EPA 353.2 REV 2	NITRATE/NITRITE	PA
EPA 353.2 REV 2	NITRITE AS N	PA	EPA 504.1 REV 1.1	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	PA
EPA 504.1 REV 1.1	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	PA	EPA 507 REV 2.1	ALACHLOR	PA
EPA 507 REV 2.1	ATRAZINE	PA	EPA 507 REV 2.1	SIMAZINE	PA
EPA 508 REV 3.1	AROCLOR-1016 (PCB-1016)	PA	EPA 508 REV 3.1	AROCLOR-1221 (PCB-1221)	PA
EPA 508 REV 3.1	AROCLOR-1232 (PCB-1232)	PA	EPA 508 REV 3.1	AROCLOR-1242 (PCB-1242)	PA
EPA 508 REV 3.1	AROCLOR-1248 (PCB-1248)	PA	EPA 508 REV 3.1	AROCLOR-1254 (PCB-1254)	PA
EPA 508 REV 3.1	AROCLOR-1260 (PCB-1260)	PA	EPA 508 REV 3.1	CHLORDANE (TECH.)	PA
EPA 508 REV 3.1	ENDRIN	PA	EPA 508 REV 3.1	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	PA
EPA 508 REV 3.1	HEPTACHLOR	PA	EPA 508 REV 3.1	HEPTACHLOR EPOXIDE	PA
EPA 508 REV 3.1	HEXACHLOROBENZENE	PA	EPA 508 REV 3.1	HEXACHLOROCYCLOPENTADIENE	PA
EPA 508 REV 3.1	METHOXYCHLOR	PA	EPA 508 REV 3.1	TOXAPHENE (CHLORINATED CAMPHENE)	PA
EPA 515.1 REV 4	2,4-D	PA	EPA 515.1 REV 4	DALAPON	PA
EPA 515.1 REV 4	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	PA	EPA 515.1 REV 4	PENTACHLOROPHENOL	PA
EPA 515.1 REV 4	PICLORAM	PA	EPA 515.1 REV 4	SILVEX (2,4,5-TP)	PA
EPA 524.2 REV 4.1	1,1,1-TRICHLOROETHANE	PA	EPA 524.2 REV 4.1	1,1,2-TRICHLOROETHANE	PA
EPA 524.2 REV 4.1	1,1-DICHLOROETHYLENE	PA	EPA 524.2 REV 4.1	1,2,4-TRICHLOROBENZENE	PA
EPA 524.2 REV 4.1	1,2-DICHLOROBENZENE	PA	EPA 524.2 REV 4.1	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	PA
EPA 524.2 REV 4.1	1,2-DICHLOROPROPANE	PA	EPA 524.2 REV 4.1	1,4-DICHLOROBENZENE	PA
EPA 524.2 REV 4.1	BENZENE	PA	EPA 524.2 REV 4.1	BROMODICHLOROMETHANE	PA

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DRINKING WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 524.2 REV 4.1	BROMOFORM	PA	EPA 524.2 REV 4.1	CARBON TETRACHLORIDE	PA
EPA 524.2 REV 4.1	CHLOROBENZENE	PA	EPA 524.2 REV 4.1	CHLORODIBROMOMETHANE	PA
EPA 524.2 REV 4.1	CHLOROFORM	PA	EPA 524.2 REV 4.1	CIS-1,2-DICHLOROETHYLENE	PA
EPA 524.2 REV 4.1	ETHYLBENZENE	PA	EPA 524.2 REV 4.1	METHYLENE CHLORIDE (DICHLOROMETHANE)	PA
EPA 524.2 REV 4.1	STYRENE	PA	EPA 524.2 REV 4.1	TETRACHLOROETHENE (PERCHLOROETHENE)	PA
EPA 524.2 REV 4.1	TOLUENE	PA	EPA 524.2 REV 4.1	TOTAL TRIHALOMETHANES	VA
EPA 524.2 REV 4.1	TRANS-1,2-DICHLOROETHENE	PA	EPA 524.2 REV 4.1	TRICHLOROETHENE (TRICHLOROETHYLENE)	PA
EPA 524.2 REV 4.1	VINYL CHLORIDE	PA	EPA 524.2 REV 4.1	XYLENE (TOTAL)	PA
EPA 525.2 REV 2	ALACHLOR	PA	EPA 525.2 REV 2	ATRAZINE	PA
EPA 525.2 REV 2	BENZO(A)PYRENE	PA	EPA 525.2 REV 2	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	PA
EPA 525.2 REV 2	BIS(2-ETHYLHEXYL)ADIPATE (DI(2-ETHYLHEXYL)ADIPATE)	PA	EPA 525.2 REV 2	ENDRIN	PA
EPA 525.2 REV 2	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	PA	EPA 525.2 REV 2	HEPTACHLOR	PA
EPA 525.2 REV 2	HEPTACHLOR EPOXIDE	PA	EPA 525.2 REV 2	HEXACHLOROBENZENE	PA
EPA 525.2 REV 2	HEXACHLOROCYCLOPENTADIENE	PA	EPA 525.2 REV 2	METHOXYCHLOR	PA
EPA 525.2 REV 2	SIMAZINE	PA	EPA 531.1 REV 3.1	CARBOFURAN (FURADEN)	PA
EPA 531.1 REV 3.1	OXAMYL	PA	SM 2130 B-2001	TURBIDITY	PA
SM 2320 B-1997	ALKALINITY AS CACO3	PA	SM 2510 B-1997	CONDUCTIVITY	PA
SM 2540 C-1997	RESIDUE-FILTERABLE (TDS)	PA	SM 4500-F⁻ C-1997	FLUORIDE	PA
SM 4500-H+ B-2000	PH	PA	SM 4500-P E-1999	ORTHOPHOSPHATE AS P	PA
SM 5540 C-2000	SURFACTANTS - MBAS	PA	SM 9215 B-1994	HETEROTROPHIC PLATE COUNT	PA
SM 9223 COLILERT P/A	ESCHERICHIA COLI	PA	SM 9223 COLILERT P/A	TOTAL COLIFORMS	PA

NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 1010	FLASHPOINT	PA	EPA 1311	PREP: TOXICITY CHARACTERISTIC LEACHING PROCEDURE	PA
EPA 1312	PREP: SYNTHETIC PRECIPITATION LEACHING PROCEDURE	PA	EPA 160.4	RESIDUE-VOLATILE	PA
EPA 1613 B	1,2,3,4,6,7,8,9-OCTACHLORODIBENZO-P-DIOXIN (OCDD)	PA	EPA 1613 B	1,2,3,4,6,7,8,9-OCTACHLORODIBENZOFURAN (OCDF)	PA
EPA 1613 B	1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN (1,2,3,4,6,7,8-HPCDD)	PA	EPA 1613 B	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN (1,2,3,4,6,7,8-HPCDF)	PA
EPA 1613 B	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN (1,2,3,4,7,8,9-HPCDF)	PA	EPA 1613 B	1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN (1,2,3,4,7,8-HXCDD)	PA
EPA 1613 B	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN (1,2,3,4,7,8-HXCDF)	PA	EPA 1613 B	1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN(1,2,3,6,7,8-HXCDD)	PA

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EPA 1613 B	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN (1,2,3,6,7,8-HXCDF)	PA	EPA 1613 B	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN (1,2,3,7,8,9-HXCDD)	PA
EPA 1613 B	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN (1,2,3,7,8,9-HXCDF)	PA	EPA 1613 B	1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN (1,2,3,7,8-PECDD)	PA
EPA 1613 B	1,2,3,7,8-PENTACHLORODIBENZOFURAN (1,2,3,7,8-PECDF)	PA	EPA 1613 B	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN (2,3,4,6,7,8-HXCDF)	PA
EPA 1613 B	2,3,4,7,8-PENTACHLORODIBENZOFURAN	PA	EPA 1613 B	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (2,3,7,8-TCDD)	PA
EPA 1613 B	2,3,7,8-TETRACHLORODIBENZOFURAN (2,3,7,8-TCDF)	PA	EPA 1631 E	MERCURY	PA
EPA 1664 A	OIL AND GREASE (AS HEM)	PA	EPA 1664 A	TOTAL PETROLEUM HYDROCARBONS (TPH) (AS NONPOLAR MATERIAL, SGT-HEM)	PA
EPA 1666 A	4-METHYL-2-PENTANONE (MIBK)	PA	EPA 1666 A	DIISOPROPYLETHER (DIPE, ISOPROPYL ETHER)	PA
EPA 1666 A	ETHYL ACETATE	PA	EPA 1666 A	ISOBUTYRALDEHYDE	PA
EPA 1666 A	ISOPROPYL ACETATE	PA	EPA 1666 A	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	PA
EPA 1666 A	METHYL FORMATE	PA	EPA 1666 A	N-AMYL ACETATE	PA
EPA 1666 A	N-AMYL ALCOHOL	PA	EPA 1666 A	N-BUTYL-ACETATE	PA
EPA 1666 A	N-HEPTANE	PA	EPA 1666 A	N-HEXANE	PA
EPA 1666 A	TERT-BUTYL ALCOHOL	PA	EPA 1666 A	TETRAHYDROFURAN (THF)	PA
EPA 1666 A	XYLENE (TOTAL)	PA	EPA 1668 A	2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL (BZ-206)	PA
EPA 1668 A	2,2',3,3',4,4',5,5'-OCTACHLOROBIPHENYL (BZ-194)	PA	EPA 1668 A	2,2',3,3',4,4',5,6'-OCTACHLOROBIPHENYL (BZ-196)	PA
EPA 1668 A	2,2',3,3',4,4',5,6,6'-NONACHLOROBIPHENYL (BZ-207)	PA	EPA 1668 A	2,2',3,3',4,4',5,6-OCTACHLOROBIPHENYL BZ-195)	PA
EPA 1668 A	2,2',3,3',4,4',5-HEPTACHLOROBIPHENYL (BZ-170)	PA	EPA 1668 A	2,2',3,3',4,4',6,6'-OCTACHLOROBIPHENYL (BZ-197)	PA
EPA 1668 A	2,2',3,3',4,4',6-HEPTACHLOROBIPHENYL (BZ-171)	PA	EPA 1668 A	2,2',3,3',4,4'-HEXACHLOROBIPHENYL (BZ-128)	PA
EPA 1668 A	2,2',3,3',4,5',6'-HEPTACHLOROBIPHENYL (BZ-177)	PA	EPA 1668 A	2,2',3,3',4,5',6,6'-OCTACHLOROBIPHENYL (BZ-201)	PA
EPA 1668 A	2,2',3,3',4,5',6-HEPTACHLOROBIPHENYL (BZ-175)	PA	EPA 1668 A	2,2',3,3',4,5'-HEXACHLOROBIPHENYL (BZ-130)	PA
EPA 1668 A	2,2',3,3',4,5,5',6'-OCTACHLOROBIPHENYL (BZ-199)	PA	EPA 1668 A	2,2',3,3',4,5,5',6,6'-NONACHLOROBIPHENYL (BZ-208)	PA
EPA 1668 A	2,2',3,3',4,5,5',6-OCTACHLOROBIPHENYL (BZ-198)	PA	EPA 1668 A	2,2',3,3',4,5,5'-HEPTACHLOROBIPHENYL (BZ-172)	PA
EPA 1668 A	2,2',3,3',4,5,6'-HEPTACHLOROBIPHENYL (BZ-174)	PA	EPA 1668 A	2,2',3,3',4,5,6,6'-OCTACHLOROBIPHENYL (BZ-200)	PA
EPA 1668 A	2,2',3,3',4,5,6-HEPTACHLOROBIPHENYL (BZ-173)	PA	EPA 1668 A	2,2',3,3',4,5-HEXACHLOROBIPHENYL (BZ-129)	PA
EPA 1668 A	2,2',3,3',4,6'-HEXACHLOROBIPHENYL (BZ-132)	PA	EPA 1668 A	2,2',3,3',4,6,6'-HEPTACHLOROBIPHENYL (BZ-176)	PA
EPA 1668 A	2,2',3,3',4,6-HEXACHLOROBIPHENYL (BZ-131)	PA	EPA 1668 A	2,2',3,3',4-PENTACHLOROBIPHENYL (BZ-82)	PA

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EPA 1668 A	2,2',3,3',5,5',6,6'-OCTACHLOROBIPHENYL (BZ-202)	PA	EPA 1668 A	2,2',3,3',5,5',6-HEPTACHLOROBIPHENYL (BZ-178)	PA
EPA 1668 A	2,2',3,3',5,5'-HEXACHLOROBIPHENYL (BZ-133)	PA	EPA 1668 A	2,2',3,3',5,6'-HEXACHLOROBIPHENYL (BZ-135)	PA
EPA 1668 A	2,2',3,3',5,6,6'-HEPTACHLOROBIPHENYL (BZ-179)	PA	EPA 1668 A	2,2',3,3',5,6-HEXACHLOROBIPHENYL (BZ-134)	PA
EPA 1668 A	2,2',3,3',5-PENTACHLOROBIPHENYL (BZ-83)	PA	EPA 1668 A	2,2',3,3',6,6'-HEXACHLOROBIPHENYL (BZ-136)	PA
EPA 1668 A	2,2',3,3',6-PENTACHLOROBIPHENYL (BZ-84)	PA	EPA 1668 A	2,2',3,3'-TETRACHLOROBIPHENYL (BZ-40)	PA
EPA 1668 A	2,2',3,4',5',6-HEXACHLOROBIPHENYL (BZ-149)	PA	EPA 1668 A	2,2',3,4',5'-PENTACHLOROBIPHENYL (BZ-97)	PA
EPA 1668 A	2,2',3,4',5,5',6-HEPTACHLOROBIPHENYL (BZ-187)	PA	EPA 1668 A	2,2',3,4',5,5'-HEXACHLOROBIPHENYL (BZ-146)	PA
EPA 1668 A	2,2',3,4',5,6'-HEXACHLOROBIPHENYL (BZ-148)	PA	EPA 1668 A	2,2',3,4',5,6,6'-HEPTACHLOROBIPHENYL (BZ-188)	PA
EPA 1668 A	2,2',3,4',5,6-HEXACHLOROBIPHENYL (BZ-147)	PA	EPA 1668 A	2,2',3,4',5-PENTACHLOROBIPHENYL (BZ-90)	PA
EPA 1668 A	2,2',3,4',6'-PENTACHLOROBIPHENYL (BZ-98)	PA	EPA 1668 A	2,2',3,4',6,6'-HEXACHLOROBIPHENYL (BZ-150)	PA
EPA 1668 A	2,2',3,4',6-PENTACHLOROBIPHENYL (BZ-91)	PA	EPA 1668 A	2,2',3,4'-TETRACHLOROBIPHENYL (BZ-42)	PA
EPA 1668 A	2,2',3,4,4',5',6-HEPTACHLOROBIPHENYL (BZ-183)	PA	EPA 1668 A	2,2',3,4,4',5'-HEXACHLOROBIPHENYL (BZ-138)	PA
EPA 1668 A	2,2',3,4,4',5,5',6-OCTACHLOROBIPHENYL (BZ-203)	PA	EPA 1668 A	2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL (BZ-180)	PA
EPA 1668 A	2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL (BZ-182)	PA	EPA 1668 A	2,2',3,4,4',5,6,6'-OCTACHLOROBIPHENYL (BZ-204)	PA
EPA 1668 A	2,2',3,4,4',5,6-HEPTACHLOROBIPHENYL (BZ-181)	PA	EPA 1668 A	2,2',3,4,4',5-HEXACHLOROBIPHENYL (BZ-137)	PA
EPA 1668 A	2,2',3,4,4',6'-HEXACHLOROBIPHENYL (BZ-140)	PA	EPA 1668 A	2,2',3,4,4',6,6'-HEPTACHLOROBIPHENYL (BZ-184)	PA
EPA 1668 A	2,2',3,4,4',6-HEXACHLOROBIPHENYL (BZ-139)	PA	EPA 1668 A	2,2',3,4,4'-PENTACHLOROBIPHENYL (BZ-85)	PA
EPA 1668 A	2,2',3,4,5',6-HEXACHLOROBIPHENYL (BZ-144)	PA	EPA 1668 A	2,2',3,4,5'-PENTACHLOROBIPHENYL (BZ-87)	PA
EPA 1668 A	2,2',3,4,5,5',6-HEPTACHLOROBIPHENYL (BZ-185)	PA	EPA 1668 A	2,2',3,4,5,5'-HEXACHLOROBIPHENYL (BZ-141)	PA
EPA 1668 A	2,2',3,4,5,6'-HEXACHLOROBIPHENYL (BZ-143)	PA	EPA 1668 A	2,2',3,4,5,6,6'-HEPTACHLOROBIPHENYL (BZ-186)	PA
EPA 1668 A	2,2',3,4,5,6-HEXACHLOROBIPHENYL (BZ-142)	PA	EPA 1668 A	2,2',3,4,5-PENTACHLOROBIPHENYL (BZ-86)	PA
EPA 1668 A	2,2',3,4,6'-PENTACHLOROBIPHENYL (BZ-89)	PA	EPA 1668 A	2,2',3,4,6,6'-HEXACHLOROBIPHENYL (BZ-145)	PA
EPA 1668 A	2,2',3,4,6-PENTACHLOROBIPHENYL (BZ-88)	PA	EPA 1668 A	2,2',3,4-TETRACHLOROBIPHENYL (BZ-41)	PA
EPA 1668 A	2,2',3,5',6-PENTACHLOROBIPHENYL (BZ-95)	PA	EPA 1668 A	2,2',3,5'-TETRACHLOROBIPHENYL (BZ-44)	PA
EPA 1668 A	2,2',3,5,5',6-HEXACHLOROBIPHENYL (BZ-151)	PA	EPA 1668 A	2,2',3,5,5'-PENTACHLOROBIPHENYL (BZ-92)	PA

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METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 1668 A	2,2',3,5,6'-PENTACHLOROBIPHENYL (BZ-94)	PA	EPA 1668 A	2,2',3,5,6,6'-HEXACHLOROBIPHENYL (BZ-152)	PA
EPA 1668 A	2,2',3,5,6-PENTACHLOROBIPHENYL (BZ-93)	PA	EPA 1668 A	2,2',3,5-TETRACHLOROBIPHENYL (BZ-43)	PA
EPA 1668 A	2,2',3,6'-TETRACHLOROBIPHENYL (BZ-46)	PA	EPA 1668 A	2,2',3,6,6'-PENTACHLOROBIPHENYL (BZ-96)	PA
EPA 1668 A	2,2',3,6-TETRACHLOROBIPHENYL (BZ-45)	PA	EPA 1668 A	2,2',3-TRICHLOROBIPHENYL (BZ-16)	PA
EPA 1668 A	2,2',4,4',5,5'-HEXACHLOROBIPHENYL (BZ-153)	PA	EPA 1668 A	2,2',4,4',5,6'-HEXACHLOROBIPHENYL (BZ-154)	PA
EPA 1668 A	2,2',4,4',5-PENTACHLOROBIPHENYL (BZ-99)	PA	EPA 1668 A	2,2',4,4',6,6'-HEXACHLOROBIPHENYL (BZ-155)	PA
EPA 1668 A	2,2',4,4',6-PENTACHLOROBIPHENYL (BZ-100)	PA	EPA 1668 A	2,2',4,4'-TETRACHLOROBIPHENYL (BZ-47)	PA
EPA 1668 A	2,2',4,5',6-PENTACHLOROBIPHENYL (BZ-103)	PA	EPA 1668 A	2,2',4,5'-TETRACHLOROBIPHENYL (BZ-49)	PA
EPA 1668 A	2,2',4,5,5'-PENTACHLOROBIPHENYL (BZ-101)	PA	EPA 1668 A	2,2',4,5,6'-PENTACHLOROBIPHENYL (BZ-102)	PA
EPA 1668 A	2,2',4,5-TETRACHLOROBIPHENYL (BZ-48)	PA	EPA 1668 A	2,2',4,6'-TETRACHLOROBIPHENYL (BZ-51)	PA
EPA 1668 A	2,2',4,6,6'-PENTACHLOROBIPHENYL (BZ-104)	PA	EPA 1668 A	2,2',4,6-TETRACHLOROBIPHENYL (BZ-50)	PA
EPA 1668 A	2,2',4-TRICHLOROBIPHENYL (BZ-17)	PA	EPA 1668 A	2,2',5,5'-TETRACHLOROBIPHENYL (BZ-52)	PA
EPA 1668 A	2,2',5,6'-TETRACHLOROBIPHENYL (BZ-53)	PA	EPA 1668 A	2,2',5-TRICHLOROBIPHENYL (BZ-18)	PA
EPA 1668 A	2,2',6,6'-TETRACHLOROBIPHENYL (BZ-54)	PA	EPA 1668 A	2,2',6-TRICHLOROBIPHENYL (BZ-19)	PA
EPA 1668 A	2,2'-DICHLOROBIPHENYL (BZ-4)	PA	EPA 1668 A	2,3',4',5',6-PENTACHLOROBIPHENYL (BZ-125)	PA
EPA 1668 A	2,3',4',5'-TETRACHLOROBIPHENYL (BZ-76)	PA	EPA 1668 A	2,3',4',5,5'-PENTACHLOROBIPHENYL (BZ-124)	PA
EPA 1668 A	2,3',4',5-TETRACHLOROBIPHENYL (BZ-70)	PA	EPA 1668 A	2,3',4',6-TETRACHLOROBIPHENYL (BZ-71)	PA
EPA 1668 A	2,3',4'-TRICHLOROBIPHENYL (BZ-33)	PA	EPA 1668 A	2,3',4,4',5',6-HEXACHLOROBIPHENYL (BZ-168)	PA
EPA 1668 A	2,3',4,4',5'-PENTACHLOROBIPHENYL (BZ-123)	PA	EPA 1668 A	2,3',4,4',5,5'-HEXACHLOROBIPHENYL (BZ-167)	PA
EPA 1668 A	2,3',4,4',5-PENTACHLOROBIPHENYL (BZ-118)	PA	EPA 1668 A	2,3',4,4',6-PENTACHLOROBIPHENYL (BZ-119)	PA
EPA 1668 A	2,3',4,4'-TETRACHLOROBIPHENYL (BZ-66)	PA	EPA 1668 A	2,3',4,5',6-PENTACHLOROBIPHENYL (BZ-121)	PA
EPA 1668 A	2,3',4,5'-TETRACHLOROBIPHENYL (BZ-68)	PA	EPA 1668 A	2,3',4,5,5'-PENTACHLOROBIPHENYL (BZ-120)	PA
EPA 1668 A	2,3',4,5-TETRACHLOROBIPHENYL (BZ-67)	PA	EPA 1668 A	2,3',4,6-TETRACHLOROBIPHENYL (BZ-69)	PA
EPA 1668 A	2,3',4-TRICHLOROBIPHENYL (BZ-25)	PA	EPA 1668 A	2,3',5',6-TETRACHLOROBIPHENYL (BZ-73)	PA
EPA 1668 A	2,3',5'-TRICHLOROBIPHENYL (BZ-34)	PA	EPA 1668 A	2,3',5,5'-TETRACHLOROBIPHENYL (BZ-72)	PA

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EPA 1668 A	2,3',5-TRICHLOROBIPHENYL (BZ-26)	PA
EPA 1668 A	2,3'-DICHLOROBIPHENYL (BZ-6)	PA
EPA 1668 A	2,3,3',4',5'-PENTACHLOROBIPHENYL (BZ-122)	PA
EPA 1668 A	2,3,3',4',5,5'-HEXACHLOROBIPHENYL (BZ-162)	PA
EPA 1668 A	2,3,3',4',5-PENTACHLOROBIPHENYL (BZ-107)	PA
EPA 1668 A	2,3,3',4'-TETRACHLOROBIPHENYL (BZ-56)	PA
EPA 1668 A	2,3,3',4,4',5'-HEXACHLOROBIPHENYL (BZ-157)	PA
EPA 1668 A	2,3,3',4,4',5,5'-HEPTACHLOROBIPHENYL (BZ-189)	PA
EPA 1668 A	2,3,3',4,4',5-HEXACHLOROBIPHENYL (BZ-156)	PA
EPA 1668 A	2,3,3',4,4'-PENTACHLOROBIPHENYL (BZ-105)	PA
EPA 1668 A	2,3,3',4,5'-PENTACHLOROBIPHENYL (BZ-108)	PA
EPA 1668 A	2,3,3',4,5,5'-HEXACHLOROBIPHENYL (BZ-159)	PA
EPA 1668 A	2,3,3',4,5-PENTACHLOROBIPHENYL (BZ-106)	PA
EPA 1668 A	2,3,3',4-TETRACHLOROBIPHENYL (BZ-55)	PA
EPA 1668 A	2,3,3',5'-TETRACHLOROBIPHENYL (BZ-58)	PA
EPA 1668 A	2,3,3',5,5'-PENTACHLOROBIPHENYL (BZ-111)	PA
EPA 1668 A	2,3,3',5-TETRACHLOROBIPHENYL (BZ-57)	PA
EPA 1668 A	2,3,3'-TRICHLOROBIPHENYL (BZ-20)	PA
EPA 1668 A	2,3,4',5-TETRACHLOROBIPHENYL (BZ-63)	PA
EPA 1668 A	2,3,4'-TRICHLOROBIPHENYL (BZ-22)	PA
EPA 1668 A	2,3,4,4',5-PENTACHLOROBIPHENYL (BZ-114)	PA
EPA 1668 A	2,3,4,4'-TETRACHLOROBIPHENYL (BZ-60)	PA
EPA 1668 A	2,3,4,5-TETRACHLOROBIPHENYL (BZ-61)	PA
EPA 1668 A	2,3,4-TRICHLOROBIPHENYL (BZ-21)	PA
EPA 1668 A	2,3,5-TRICHLOROBIPHENYL (BZ-23)	PA
EPA 1668 A	2,3-DICHLOROBIPHENYL (BZ-5)	PA
EPA 1668 A	2,4',6-TRICHLOROBIPHENYL (BZ-32)	PA
EPA 1668 A	2,3',6-TRICHLOROBIPHENYL (BZ-27)	PA
EPA 1668 A	2,3,3',4',5',6-HEXACHLOROBIPHENYL (BZ-164)	PA
EPA 1668 A	2,3,3',4',5,5',6-HEPTACHLOROBIPHENYL (BZ-193)	PA
EPA 1668 A	2,3,3',4',5,6-HEXACHLOROBIPHENYL (BZ-163)	PA
EPA 1668 A	2,3,3',4',6-PENTACHLOROBIPHENYL (BZ-110)	PA
EPA 1668 A	2,3,3',4,4',5',6-HEPTACHLOROBIPHENYL (BZ-191)	PA
EPA 1668 A	2,3,3',4,4',5,5',6-OCTACHLOROBIPHENYL (BZ-205)	PA
EPA 1668 A	2,3,3',4,4',5,6-HEPTACHLOROBIPHENYL (BZ-190)	PA
EPA 1668 A	2,3,3',4,4',6-HEXACHLOROBIPHENYL (BZ-158)	PA
EPA 1668 A	2,3,3',4,5',6-HEXACHLOROBIPHENYL (BZ-161)	PA
EPA 1668 A	2,3,3',4,5,5',6-HEPTACHLOROBIPHENYL (BZ-192)	PA
EPA 1668 A	2,3,3',4,5,6-HEXACHLOROBIPHENYL (BZ-160)	PA
EPA 1668 A	2,3,3',4,6-PENTACHLOROBIPHENYL (BZ-109)	PA
EPA 1668 A	2,3,3',5',6-PENTACHLOROBIPHENYL (BZ-113)	PA
EPA 1668 A	2,3,3',5,5',6-HEXACHLOROBIPHENYL (BZ-165)	PA
EPA 1668 A	2,3,3',5,6-PENTACHLOROBIPHENYL (BZ-112)	PA
EPA 1668 A	2,3,3',6-TETRACHLOROBIPHENYL (BZ-59)	PA
EPA 1668 A	2,3,4',5,6-PENTACHLOROBIPHENYL (BZ-117)	PA
EPA 1668 A	2,3,4',6-TETRACHLOROBIPHENYL (BZ-64)	PA
EPA 1668 A	2,3,4,4',5,6-HEXACHLOROBIPHENYL (BZ-166)	PA
EPA 1668 A	2,3,4,4',6-PENTACHLOROBIPHENYL (BZ-115)	PA
EPA 1668 A	2,3,4,5,6-PENTACHLOROBIPHENYL (BZ-116)	PA
EPA 1668 A	2,3,4,6-TETRACHLOROBIPHENYL (BZ-62)	PA
EPA 1668 A	2,3,5,6-TETRACHLOROBIPHENYL (BZ-65)	PA
EPA 1668 A	2,3,6-TRICHLOROBIPHENYL (BZ-24)	PA
EPA 1668 A	2,4',5-TRICHLOROBIPHENYL (BZ-31)	PA

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EPA 1668 A	2,4'-DICHLOROBIPHENYL (BZ-8)	PA	EPA 1668 A	2,4,4',5-TETRACHLOROBIPHENYL (BZ-74)	PA
EPA 1668 A	2,4,4',6-TETRACHLOROBIPHENYL (BZ-75)	PA	EPA 1668 A	2,4,4'-TRICHLOROBIPHENYL (BZ-28)	PA
EPA 1668 A	2,4,5-TRICHLOROBIPHENYL (BZ-29)	PA	EPA 1668 A	2,4,6-TRICHLOROBIPHENYL (BZ-30)	PA
EPA 1668 A	2,4-DICHLOROBIPHENYL (BZ-7)	PA	EPA 1668 A	2,5-DICHLOROBIPHENYL (BZ-9)	PA
EPA 1668 A	2,6-DICHLOROBIPHENYL (BZ-10)	PA	EPA 1668 A	2-CHLOROBIPHENYL (BZ-1)	PA
EPA 1668 A	3,3',4,4',5,5'-HEXACHLOROBIPHENYL (BZ-169)	PA	EPA 1668 A	3,3',4,4',5-PENTACHLOROBIPHENYL (BZ-126)	PA
EPA 1668 A	3,3',4,4'-TETRACHLOROBIPHENYL (BZ-77)	PA	EPA 1668 A	3,3',4,5'-TETRACHLOROBIPHENYL (BZ-79)	PA
EPA 1668 A	3,3',4,5,5'-PENTACHLOROBIPHENYL (BZ-127)	PA	EPA 1668 A	3,3',4,5-TETRACHLOROBIPHENYL (BZ-78)	PA
EPA 1668 A	3,3',4-TRICHLOROBIPHENYL (BZ-35)	PA	EPA 1668 A	3,3',5,5'-TETRACHLOROBIPHENYL (BZ-80)	PA
EPA 1668 A	3,3',5-TRICHLOROBIPHENYL (BZ-36)	PA	EPA 1668 A	3,3'-DICHLOROBIPHENYL (BZ-11)	PA
EPA 1668 A	3,4',5-TRICHLOROBIPHENYL (BZ-39)	PA	EPA 1668 A	3,4'-DICHLOROBIPHENYL (BZ-13)	PA
EPA 1668 A	3,4,4',5-TETRACHLOROBIPHENYL (BZ-81)	PA	EPA 1668 A	3,4,4'-TRICHLOROBIPHENYL (BZ-37)	PA
EPA 1668 A	3,4,5-TRICHLOROBIPHENYL (BZ-38)	PA	EPA 1668 A	3,4-DICHLOROBIPHENYL (BZ-12)	PA
EPA 1668 A	3,5-DICHLOROBIPHENYL (BZ-14)	PA	EPA 1668 A	3-CHLOROBIPHENYL (BZ-2)	PA
EPA 1668 A	4,4'-DICHLOROBIPHENYL (BZ-15)	PA	EPA 1668 A	4-CHLOROBIPHENYL (BZ-3)	PA
EPA 1668 A	DECACHLOROBIPHENYL (BZ-209)	PA	EPA 1671 A	2-METHOXYETHANOL (METHYL CELLOSOLVE)	PA
EPA 1671 A	ACETONITRILE	PA	EPA 1671 A	DIETHYLAMINE	PA
EPA 1671 A	DIMETHYL SULFOXIDE	PA	EPA 1671 A	ETHANOL	PA
EPA 1671 A	METHANOL	PA	EPA 1671 A	N-PROPANOL (1-PROPANOL)	PA
EPA 1671 A	TRIETHYLAMINE	PA	EPA 180.1 REV 2	TURBIDITY	PA
EPA 200.2 REV 2.8	PREP: SAMPLE PREPARATION PROCEDURE FOR SPECTROCHEMICAL DETERMINATION OF TOTAL RECOVERABLE ELEMENTS	PA	EPA 200.7 REV 4.4	ALUMINUM	PA
EPA 200.7 REV 4.4	ANTIMONY	PA	EPA 200.7 REV 4.4	ARSENIC	PA
EPA 200.7 REV 4.4	BARIUM	PA	EPA 200.7 REV 4.4	BERYLLIUM	PA
EPA 200.7 REV 4.4	BORON	PA	EPA 200.7 REV 4.4	CADMIUM	PA
EPA 200.7 REV 4.4	CALCIUM	PA	EPA 200.7 REV 4.4	CHROMIUM	PA
EPA 200.7 REV 4.4	COBALT	PA	EPA 200.7 REV 4.4	COPPER	PA
EPA 200.7 REV 4.4	IRON	PA	EPA 200.7 REV 4.4	LEAD	PA
EPA 200.7 REV 4.4	MAGNESIUM	PA	EPA 200.7 REV 4.4	MANGANESE	PA
EPA 200.7 REV 4.4	MOLYBDENUM	PA	EPA 200.7 REV 4.4	NICKEL	PA
EPA 200.7 REV 4.4	POTASSIUM	PA	EPA 200.7 REV 4.4	SELENIUM	PA
EPA 200.7 REV 4.4	SILVER	PA	EPA 200.7 REV 4.4	SODIUM	PA
EPA 200.7 REV 4.4	THALLIUM	PA	EPA 200.7 REV 4.4	TIN	PA

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EPA 200.7 REV 4.4	TITANIUM	PA	EPA 200.7 REV 4.4	VANADIUM	PA
EPA 200.7 REV 4.4	ZINC	PA	EPA 200.8 REV 5.4	ALUMINUM	PA
EPA 200.8 REV 5.4	ANTIMONY	PA	EPA 200.8 REV 5.4	ARSENIC	PA
EPA 200.8 REV 5.4	BARIUM	PA	EPA 200.8 REV 5.4	BERYLLIUM	PA
EPA 200.8 REV 5.4	CADMIUM	PA	EPA 200.8 REV 5.4	CHROMIUM	PA
EPA 200.8 REV 5.4	COBALT	PA	EPA 200.8 REV 5.4	COPPER	PA
EPA 200.8 REV 5.4	LEAD	PA	EPA 200.8 REV 5.4	MANGANESE	PA
EPA 200.8 REV 5.4	MOLYBDENUM	PA	EPA 200.8 REV 5.4	NICKEL	PA
EPA 200.8 REV 5.4	SELENIUM	PA	EPA 200.8 REV 5.4	SILVER	PA
EPA 200.8 REV 5.4	THALLIUM	PA	EPA 200.8 REV 5.4	VANADIUM	PA
EPA 200.8 REV 5.4	ZINC	PA	EPA 200.8 REV 5.4 - EXTENDED	BORON	PA
EPA 200.8 REV 5.4 - EXTENDED	CALCIUM	PA	EPA 200.8 REV 5.4 - EXTENDED	IRON	PA
EPA 200.8 REV 5.4 - EXTENDED	MAGNESIUM	PA	EPA 200.8 REV 5.4 - EXTENDED	POTASSIUM	PA
EPA 200.8 REV 5.4 - EXTENDED	SODIUM	PA	EPA 200.8 REV 5.4 - EXTENDED	TIN	PA
EPA 200.8 REV 5.4 - EXTENDED	TITANIUM	PA	EPA 245.1 REV 3	MERCURY	PA
EPA 300.0 REV 2.1	BROMIDE	PA	EPA 300.0 REV 2.1	CHLORIDE	PA
EPA 300.0 REV 2.1	FLUORIDE	PA	EPA 300.0 REV 2.1	NITRATE AS N	PA
EPA 300.0 REV 2.1	NITRITE AS N	PA	EPA 300.0 REV 2.1	SULFATE	PA
EPA 3005 A	PREP: ACID DIGESTION OF WATERS FOR TOTAL RECOVERABLE OR DISSOLVED METALS	PA	EPA 3010 A	PREP: ACID DIGESTION OF AQUEOUS SAMPLES AND EXTRACTS FOR TOTAL METALS	PA
EPA 3020 A	PREP: ACID DIGESTION OF AQUEOUS SAMPLES AND EXTRACTS FOR TOTAL METALS	PA	EPA 335.4 REV 1.0	CYANIDE	PA
EPA 351.2 REV 2	KJELDAHL NITROGEN - TOTAL	PA	EPA 3510 C	PREP: LIQUID-LIQUID EXTRACTION	PA
EPA 3511	PREP: ORGANIC EXTRACTION AND SAMPLE PREPARATION	PA	EPA 3520 C	PREP: CONTINUOUS LIQUID-LIQUID EXTRACTION	PA
EPA 353.2 REV 2	NITRATE AS N	PA	EPA 353.2 REV 2	NITRATE/NITRITE	PA
EPA 353.2 REV 2	NITRITE AS N	PA	EPA 3620 B	PREP: FLORISIL CLEANUP	PA
EPA 3630 C	PREP: SILICA GEL CLEANUP	PA	EPA 365.1 REV 2	PHOSPHORUS, TOTAL	PA
EPA 365.3	ORTHOPHOSPHATE AS P	PA	EPA 410.4 REV 2	CHEMICAL OXYGEN DEMAND	PA
EPA 420.4 REV 1	TOTAL PHENOLICS	PA	EPA 5030	PREP: PURGE AND TRAP FOR AQUEOUS SAMPLES	PA
EPA 6010 B	ALUMINUM	PA	EPA 6010 B	ANTIMONY	PA
EPA 6010 B	ARSENIC	PA	EPA 6010 B	BARIUM	PA
EPA 6010 B	BERYLLIUM	PA	EPA 6010 B	BORON	PA
EPA 6010 B	CADMIUM	PA	EPA 6010 B	CALCIUM	PA
EPA 6010 B	CHROMIUM	PA	EPA 6010 B	COBALT	PA

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EPA 6010 B	COPPER	PA	EPA 6010 B	IRON	PA
EPA 6010 B	LEAD	PA	EPA 6010 B	LITHIUM	PA
EPA 6010 B	MAGNESIUM	PA	EPA 6010 B	MANGANESE	PA
EPA 6010 B	MOLYBDENUM	PA	EPA 6010 B	NICKEL	PA
EPA 6010 B	POTASSIUM	PA	EPA 6010 B	SELENIUM	PA
EPA 6010 B	SILVER	PA	EPA 6010 B	SODIUM	PA
EPA 6010 B	STRONTIUM	PA	EPA 6010 B	THALLIUM	PA
EPA 6010 B	TIN	PA	EPA 6010 B	TITANIUM	PA
EPA 6010 B	VANADIUM	PA	EPA 6010 B	ZINC	PA
EPA 6010 C	ALUMINUM	PA	EPA 6010 C	ANTIMONY	PA
EPA 6010 C	ARSENIC	PA	EPA 6010 C	BARIUM	PA
EPA 6010 C	BERYLLIUM	PA	EPA 6010 C	BORON	PA
EPA 6010 C	CADMIUM	PA	EPA 6010 C	CALCIUM	PA
EPA 6010 C	CHROMIUM	PA	EPA 6010 C	COBALT	PA
EPA 6010 C	COPPER	PA	EPA 6010 C	IRON	PA
EPA 6010 C	LEAD	PA	EPA 6010 C	LITHIUM	PA
EPA 6010 C	MAGNESIUM	PA	EPA 6010 C	MANGANESE	PA
EPA 6010 C	MOLYBDENUM	PA	EPA 6010 C	NICKEL	PA
EPA 6010 C	POTASSIUM	PA	EPA 6010 C	SELENIUM	PA
EPA 6010 C	SILVER	PA	EPA 6010 C	SODIUM	PA
EPA 6010 C	STRONTIUM	PA	EPA 6010 C	THALLIUM	PA
EPA 6010 C	TIN	PA	EPA 6010 C	TITANIUM	PA
EPA 6010 C	VANADIUM	PA	EPA 6010 C	ZINC	PA
EPA 602	BENZENE	PA	EPA 602	ETHYLBENZENE	PA
EPA 602	TOLUENE	PA	EPA 602	XYLENE (TOTAL)	PA
EPA 6020 A	ALUMINUM	PA	EPA 6020 A	ANTIMONY	PA
EPA 6020 A	ARSENIC	PA	EPA 6020 A	BARIUM	PA
EPA 6020 A	BERYLLIUM	PA	EPA 6020 A	CADMIUM	PA
EPA 6020 A	CALCIUM	PA	EPA 6020 A	CHROMIUM	PA
EPA 6020 A	COBALT	PA	EPA 6020 A	COPPER	PA
EPA 6020 A	IRON	PA	EPA 6020 A	LEAD	PA
EPA 6020 A	MAGNESIUM	PA	EPA 6020 A	MANGANESE	PA
EPA 6020 A	NICKEL	PA	EPA 6020 A	POTASSIUM	PA
EPA 6020 A	SELENIUM	PA	EPA 6020 A	SILVER	PA
EPA 6020 A	SODIUM	PA	EPA 6020 A	THALLIUM	PA
EPA 6020 A	VANADIUM	PA	EPA 6020 A	ZINC	PA
EPA 6020 A - EXTENDED	BORON	PA	EPA 6020 A - EXTENDED	MOLYBDENUM	PA
EPA 6020 A - EXTENDED	STRONTIUM	PA	EPA 6020 A - EXTENDED	TIN	PA
EPA 6020 A - EXTENDED	TITANIUM	PA	EPA 608	4,4'-DDD	PA

Commonwealth of Virginia

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 608	4,4'-DDE	PA	EPA 608	4,4'-DDT	PA
EPA 608	ALDRIN	PA	EPA 608	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	PA
EPA 608	AROCLOR-1016 (PCB-1016)	PA	EPA 608	AROCLOR-1221 (PCB-1221)	PA
EPA 608	AROCLOR-1232 (PCB-1232)	PA	EPA 608	AROCLOR-1242 (PCB-1242)	PA
EPA 608	AROCLOR-1248 (PCB-1248)	PA	EPA 608	AROCLOR-1254 (PCB-1254)	PA
EPA 608	AROCLOR-1260 (PCB-1260)	PA	EPA 608	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	PA
EPA 608	CHLORDANE (TECH.)	PA	EPA 608	DELTA-BHC	PA
EPA 608	DIELDRIN	PA	EPA 608	ENDOSULFAN I	PA
EPA 608	ENDOSULFAN II	PA	EPA 608	ENDOSULFAN SULFATE	PA
EPA 608	ENDRIN	PA	EPA 608	ENDRIN ALDEHYDE	PA
EPA 608	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	PA	EPA 608	HEPTACHLOR	PA
EPA 608	HEPTACHLOR EPOXIDE	PA	EPA 608	TOXAPHENE (CHLORINATED CAMPHENE)	PA
EPA 622	AZINPHOS-METHYL (GUTHION)	PA	EPA 622	BOLSTAR (SULPROFOS)	PA
EPA 622	CHLORPYRIFOS	PA	EPA 622	DEMETON-O	PA
EPA 622	DEMETON-S	PA	EPA 622	DIAZINON	PA
EPA 622	DICHLOROVOS (DDVP, DICHLORVOS)	PA	EPA 622	DISULFOTON	PA
EPA 622	ETHOPROP	PA	EPA 622	FENSULFOTHION	PA
EPA 622	FENTHION	PA	EPA 622	MERPHOS	PA
EPA 622	METHYL PARATHION (PARATHION, METHYL)	PA	EPA 622	MEVINPHOS	PA
EPA 622	NALED	PA	EPA 622	PHORATE	PA
EPA 622	STIROFOS	PA	EPA 624	1,1,1-TRICHLOROETHANE	PA
EPA 624	1,1,2,2-TETRACHLOROETHANE	PA	EPA 624	1,1,2-TRICHLOROETHANE	PA
EPA 624	1,1-DICHLOROETHANE	PA	EPA 624	1,2-DICHLOROBENZENE	PA
EPA 624	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	PA	EPA 624	1,2-DICHLOROPROPANE	PA
EPA 624	1,3-DICHLOROBENZENE	PA	EPA 624	1,4-DICHLOROBENZENE	PA
EPA 624	2-CHLOROETHYL VINYL ETHER	PA	EPA 624	ACROLEIN (PROPENAL)	PA
EPA 624	ACRYLONITRILE	PA	EPA 624	BENZENE	PA
EPA 624	BROMODICHLOROMETHANE	PA	EPA 624	BROMOFORM	PA
EPA 624	CARBON TETRACHLORIDE	PA	EPA 624	CHLOROBENZENE	PA
EPA 624	CHLORODIBROMOMETHANE	PA	EPA 624	CHLOROETHANE (ETHYL CHLORIDE)	PA
EPA 624	CHLOROFORM	PA	EPA 624	CIS-1,3-DICHLOROPROPENE	PA
EPA 624	ETHYLBENZENE	PA	EPA 624	METHYL BROMIDE (BROMOMETHANE)	PA

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METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 624	METHYL CHLORIDE (CHLOROMETHANE)	PA	EPA 624	METHYLENE CHLORIDE (DICHLOROMETHANE)	PA
EPA 624	TETRACHLOROETHENE (PERCHLOROETHENE)	PA	EPA 624	TOLUENE	PA
EPA 624	TRANS-1,2-DICHLOROETHENE	PA	EPA 624	TRANS-1,3-DICHLOROPROPENE	PA
EPA 624	TRICHLOROETHENE (TRICHLOROETHYLENE)	PA	EPA 624	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	PA
EPA 624	VINYL CHLORIDE	PA	EPA 624 - EXTENDED	1,1-DICHLOROETHYLENE	PA
EPA 625	1,2,4-TRICHLOROBENZENE	PA	EPA 625	2,4,6-TRICHLOROPHENOL	PA
EPA 625	2,4-DICHLOROPHENOL	PA	EPA 625	2,4-DIMETHYLPHENOL	PA
EPA 625	2,4-DINITROPHENOL	PA	EPA 625	2,4-DINITROTOLUENE (2,4-DNT)	PA
EPA 625	2,6-DINITROTOLUENE (2,6-DNT)	PA	EPA 625	2-CHLORONAPHTHALENE	PA
EPA 625	2-CHLOROPHENOL	PA	EPA 625	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	PA
EPA 625	2-METHYLPHENOL (O-CRESOL)	PA	EPA 625	2-NITROPHENOL	PA
EPA 625	3,3'-DICHLOROBENZIDINE	PA	EPA 625	4-BROMOPHENYL PHENYL ETHER	PA
EPA 625	4-CHLORO-3-METHYLPHENOL	PA	EPA 625	4-CHLOROPHENYL PHENYLETHER	PA
EPA 625	4-NITROPHENOL	PA	EPA 625	ACENAPHTHENE	PA
EPA 625	ACENAPHTHYLENE	PA	EPA 625	ANTHRACENE	PA
EPA 625	BENZIDINE	PA	EPA 625	BENZO(A)ANTHRACENE	PA
EPA 625	BENZO(A)PYRENE	PA	EPA 625	BENZO(B)FLUORANTHENE	PA
EPA 625	BENZO(G,H,I)PERYLENE	PA	EPA 625	BENZO(K)FLUORANTHENE	PA
EPA 625	BIS(2-CHLOROETHOXY)METHANE	PA	EPA 625	BIS(2-CHLOROETHYL) ETHER	PA
EPA 625	BIS(2-CHLOROISOPROPYL) ETHER	PA	EPA 625	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	PA
EPA 625	BUTYL BENZYL PHTHALATE	PA	EPA 625	CHRYSENE	PA
EPA 625	DI-N-BUTYL PHTHALATE	PA	EPA 625	DI-N-OCTYL PHTHALATE	PA
EPA 625	DIBENZO(A,H) ANTHRACENE	PA	EPA 625	DIETHYL PHTHALATE	PA
EPA 625	DIMETHYL PHTHALATE	PA	EPA 625	FLUORANTHENE	PA
EPA 625	FLUORENE	PA	EPA 625	HEXACHLOROBENZENE	PA
EPA 625	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	PA	EPA 625	HEXACHLOROCYCLOPENTADIENE	PA
EPA 625	HEXACHLOROETHANE	PA	EPA 625	INDENO(1,2,3-CD) PYRENE	PA
EPA 625	ISOPHORONE	PA	EPA 625	N-NITROSODI-N-PROPYLAMINE	PA
EPA 625	N-NITROSODIMETHYLAMINE	PA	EPA 625	N-NITROSODIPHENYLAMINE	PA
EPA 625	NAPHTHALENE	PA	EPA 625	NITROBENZENE	PA
EPA 625	PENTACHLOROPHENOL	PA	EPA 625	PHENANTHRENE	PA
EPA 625	PHENOL	PA	EPA 625	PYRENE	PA
EPA 625 - EXTENDED	1,2-DIPHENYLHYDRAZINE	PA	EPA 625 - EXTENDED	4-METHYLPHENOL (P-CRESOL)	PA
EPA 625 - EXTENDED	ACETOPHENONE	PA	EPA 625 - EXTENDED	ANILINE	PA

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 625 - EXTENDED	CARBAZOLE	PA	EPA 625 - EXTENDED	N-DECANE	PA
EPA 625 - EXTENDED	N-OCTADECANE	PA	EPA 625 - EXTENDED	PYRIDINE	PA
EPA 6850	PERCHLORATE	PA	EPA 7196 A	CHROMIUM VI	PA
EPA 7470 A	MERCURY	PA	EPA 8011	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	PA
EPA 8011	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	PA	EPA 8015 B	DIESEL RANGE ORGANICS (DRO)	PA
EPA 8015 B	ETHANOL	PA	EPA 8015 B	ETHYLENE GLYCOL	PA
EPA 8015 B	GASOLINE RANGE ORGANICS (GRO)	PA	EPA 8015 B	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	PA
EPA 8015 B	METHANOL	PA	EPA 8015 C	DIESEL RANGE ORGANICS (DRO)	PA
EPA 8015 C	ETHANOL	PA	EPA 8015 C	ETHYLENE GLYCOL	PA
EPA 8015 C	GASOLINE RANGE ORGANICS (GRO)	PA	EPA 8015 C	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	PA
EPA 8015 C	METHANOL	PA	EPA 8021 B	BENZENE	PA
EPA 8021 B	ETHYLBENZENE	PA	EPA 8021 B	ISOPROPYLBENZENE	PA
EPA 8021 B	M+P-XYLENE	PA	EPA 8021 B	NAPHTHALENE	PA
EPA 8021 B	O-XYLENE	PA	EPA 8021 B	TOLUENE	PA
EPA 8021 B	XYLENE (TOTAL)	PA	EPA 8021 B - EXTENDED	METHYL TERT-BUTYL ETHER (MTBE)	PA
EPA 8081 A	4,4'-DDD	PA	EPA 8081 A	4,4'-DDE	PA
EPA 8081 A	4,4'-DDT	PA	EPA 8081 A	ALDRIN	PA
EPA 8081 A	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	PA	EPA 8081 A	ALPHA-CHLORDANE [CIS-CHLORDANE]	PA
EPA 8081 A	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	PA	EPA 8081 A	CHLORDANE (TECH.)	PA
EPA 8081 A	DELTA-BHC	PA	EPA 8081 A	DIELDRIN	PA
EPA 8081 A	ENDOSULFAN I	PA	EPA 8081 A	ENDOSULFAN II	PA
EPA 8081 A	ENDOSULFAN SULFATE	PA	EPA 8081 A	ENDRIN	PA
EPA 8081 A	ENDRIN ALDEHYDE	PA	EPA 8081 A	ENDRIN KETONE	PA
EPA 8081 A	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	PA	EPA 8081 A	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	PA
EPA 8081 A	HEPTACHLOR	PA	EPA 8081 A	HEPTACHLOR EPOXIDE	PA
EPA 8081 A	METHOXYCHLOR	PA	EPA 8081 A	TOXAPHENE (CHLORINATED CAMPHENE)	PA
EPA 8081 A - EXTENDED	KEPONE	PA	EPA 8081 B	4,4'-DDD	PA
EPA 8081 B	4,4'-DDE	PA	EPA 8081 B	4,4'-DDT	PA
EPA 8081 B	ALDRIN	PA	EPA 8081 B	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	PA
EPA 8081 B	ALPHA-CHLORDANE [CIS-CHLORDANE]	PA	EPA 8081 B	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	PA

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METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
			EPA 8081 B	CHLORDANE (TECH.)	PA
EPA 8081 B	DELTA-BHC	PA	EPA 8081 B	DIELDRIN	PA
EPA 8081 B	ENDOSULFAN I	PA	EPA 8081 B	ENDOSULFAN II	PA
EPA 8081 B	ENDOSULFAN SULFATE	PA	EPA 8081 B	ENDRIN	PA
EPA 8081 B	ENDRIN ALDEHYDE	PA	EPA 8081 B	ENDRIN KETONE	PA
EPA 8081 B	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	PA	EPA 8081 B	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	PA
EPA 8081 B	HEPTACHLOR	PA	EPA 8081 B	HEPTACHLOR EPOXIDE	PA
EPA 8081 B	METHOXYCHLOR	PA	EPA 8081 B	TOXAPHENE (CHLORINATED CAMPHENE)	PA
EPA 8081 B - EXTENDED	KEPONE	PA	EPA 8082 A	AROCLOR-1016 (PCB-1016)	PA
EPA 8082 A	AROCLOR-1221 (PCB-1221)	PA	EPA 8082 A	AROCLOR-1232 (PCB-1232)	PA
EPA 8082 A	AROCLOR-1242 (PCB-1242)	PA	EPA 8082 A	AROCLOR-1248 (PCB-1248)	PA
EPA 8082 A	AROCLOR-1254 (PCB-1254)	PA	EPA 8082 A	AROCLOR-1260 (PCB-1260)	PA
EPA 8082 A - EXTENDED	AROCLOR-1262 (PCB-1262)	PA	EPA 8082 A - EXTENDED	AROCLOR-1268 (PCB-1268)	PA
EPA 8141 A	ATRAZINE	PA	EPA 8141 A	BOLSTAR (SULPROFOS)	PA
EPA 8141 A	CHLORPYRIFOS	PA	EPA 8141 A	COUMAPHOS	PA
EPA 8141 A	DEMETON-O	PA	EPA 8141 A	DEMETON-S	PA
EPA 8141 A	DIAZINON	PA	EPA 8141 A	DICHLOROVOS (DDVP, DICHLORVOS)	PA
EPA 8141 A	DISULFOTON	PA	EPA 8141 A	ETHION	PA
EPA 8141 A	ETHOPROP	PA	EPA 8141 A	FAMPHUR	PA
EPA 8141 A	FENSULFOTHION	PA	EPA 8141 A	FENTHION	PA
EPA 8141 A	MALATHION	PA	EPA 8141 A	MERPHOS	PA
EPA 8141 A	METHYL PARATHION (PARATHION, METHYL)	PA	EPA 8141 A	MEVINPHOS	PA
EPA 8141 A	NALED	PA	EPA 8141 A	PARATHION (PARATHION - ETHYL)	PA
EPA 8141 A	PHORATE	PA	EPA 8141 A	RONNEL	PA
EPA 8141 A	SIMAZINE	PA	EPA 8141 A	TETRACHLORVINPHOS (STIROPHOS, GARDONA) Z-ISOMER	PA
EPA 8141 A	TOKUTHION (PROTHIOPHOS)	PA	EPA 8141 A	TRICHLORONATE	PA
EPA 8141 B	ATRAZINE	PA	EPA 8141 B	AZINPHOS-METHYL (GUTHION)	PA
EPA 8141 B	BOLSTAR (SULPROFOS)	PA	EPA 8141 B	CHLORPYRIFOS	PA
EPA 8141 B	COUMAPHOS	PA	EPA 8141 B	DEMETON-O	PA
EPA 8141 B	DEMETON-S	PA	EPA 8141 B	DICHLOROVOS (DDVP, DICHLORVOS)	PA
EPA 8141 B	DISULFOTON	PA	EPA 8141 B	EPN (PHOSPHONOTHIOIC ACID, PHENYL-, O-ETHYL O-(P-NITROPHENYL) ESTER)	PA
EPA 8141 B	ETHION	PA	EPA 8141 B	ETHOPROP	PA
EPA 8141 B	FAMPHUR	PA	EPA 8141 B	FENSULFOTHION	PA
EPA 8141 B	FENTHION	PA	EPA 8141 B	MALATHION	PA

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METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8141 B	MERPHOS	PA	EPA 8141 B	METHYL PARATHION (PARATHION, METHYL)	PA
EPA 8141 B	MEVINPHOS	PA	EPA 8141 B	NALED	PA
EPA 8141 B	PARATHION (PARATHION - ETHYL)	PA	EPA 8141 B	PHORATE	PA
EPA 8141 B	RONNEL	PA	EPA 8141 B	SIMAZINE	PA
EPA 8141 B	TETRACHLORVINPHOS (STIROPHOS, GARDONA) Z-ISOMER	PA	EPA 8141 B	TOKUTHION (PROTHIOPHOS)	PA
EPA 8141 B	TRICHLORONATE	PA	EPA 8151 A	2,4,5-T	PA
EPA 8151 A	2,4-D	PA	EPA 8151 A	2,4-DB	PA
EPA 8151 A	DALAPON	PA	EPA 8151 A	DICAMBA	PA
EPA 8151 A	DICHLOROPROP (DICHLORPROP)	PA	EPA 8151 A	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	PA
EPA 8151 A	MCPA	PA	EPA 8151 A	MCPP	PA
EPA 8151 A	PENTACHLOROPHENOL	PA	EPA 8151 A	PICLORAM	PA
EPA 8151 A	SILVEX (2,4,5-TP)	PA	EPA 8260 B	1,1,1,2-TETRACHLOROETHANE	PA
EPA 8260 B	1,1,1-TRICHLOROETHANE	PA	EPA 8260 B	1,1,2,2-TETRACHLOROETHANE	PA
EPA 8260 B	1,1,2-TRICHLOROETHANE	PA	EPA 8260 B	1,1-DICHLOROETHANE	PA
EPA 8260 B	1,1-DICHLOROETHYLENE	PA	EPA 8260 B	1,1-DICHLOROPROPENE	PA
EPA 8260 B	1,2,3-TRICHLOROBENZENE	PA	EPA 8260 B	1,2,3-TRICHLOROPROPANE	PA
EPA 8260 B	1,2,4-TRICHLOROBENZENE	PA	EPA 8260 B	1,2,4-TRIMETHYLBENZENE	PA
EPA 8260 B	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	PA	EPA 8260 B	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	PA
EPA 8260 B	1,2-DICHLOROBENZENE	PA	EPA 8260 B	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	PA
EPA 8260 B	1,2-DICHLOROPROPANE	PA	EPA 8260 B	1,3,5-TRIMETHYLBENZENE	PA
EPA 8260 B	1,3-DICHLOROBENZENE	PA	EPA 8260 B	1,3-DICHLOROPROPANE	PA
EPA 8260 B	1,4-DICHLOROBENZENE	PA	EPA 8260 B	1,4-DIOXANE (1,4-DIETHYLENEOXIDE)	PA
EPA 8260 B	1-BUTANOL (N-BUTANOL)	PA	EPA 8260 B	2,2-DICHLOROPROPANE	PA
EPA 8260 B	2-BUTANONE (METHYL ETHYL KETONE, MEK)	PA	EPA 8260 B	2-CHLOROETHYL VINYL ETHER	PA
EPA 8260 B	2-CHLOROTOLUENE	PA	EPA 8260 B	2-HEXANONE	PA
EPA 8260 B	2-NITROPROPANE	PA	EPA 8260 B	4-CHLOROTOLUENE	PA
EPA 8260 B	4-ISOPROPYLTOLUENE (P-CYMENE)	PA	EPA 8260 B	4-METHYL-2-PENTANONE (MIBK)	PA
EPA 8260 B	ACETONE	PA	EPA 8260 B	ACETONITRILE	PA
EPA 8260 B	ACROLEIN (PROPENAL)	PA	EPA 8260 B	ACRYLONITRILE	PA
EPA 8260 B	ALLYL CHLORIDE (3-CHLOROPROPENE)	PA	EPA 8260 B	BENZENE	PA
EPA 8260 B	BENZYL CHLORIDE	PA	EPA 8260 B	BROMOBENZENE	PA
EPA 8260 B	BROMOCHLOROMETHANE	PA	EPA 8260 B	BROMODICHLOROMETHANE	PA
EPA 8260 B	BROMOFORM	PA	EPA 8260 B	CARBON DISULFIDE	PA

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EPA 8260 B	CARBON TETRACHLORIDE	PA	EPA 8260 B	CHLOROBENZENE	PA
EPA 8260 B	CHLORODIBROMOMETHANE	PA	EPA 8260 B	CHLOROETHANE (ETHYL CHLORIDE)	PA
EPA 8260 B	CHLOROFORM	PA	EPA 8260 B	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	PA
EPA 8260 B	CIS-1,2-DICHLOROETHYLENE	PA	EPA 8260 B	CIS-1,3-DICHLOROPROPENE	PA
EPA 8260 B	DIBROMOMETHANE (METHYLENE BROMIDE)	PA	EPA 8260 B	DICHLORODIFLUOROMETHANE (FREON-12)	PA
EPA 8260 B	DIETHYL ETHER	PA	EPA 8260 B	EPICHLOROHYDRIN (1-CHLORO-2,3-EPOXYPROPANE)	PA
EPA 8260 B	ETHANOL	PA	EPA 8260 B	ETHYL ACETATE	PA
EPA 8260 B	ETHYL METHACRYLATE	PA	EPA 8260 B	ETHYL-T-BUTYLETHER (2-ETHOXY-2-METHYLPROPANE, ETBE)	PA
EPA 8260 B	ETHYLBENZENE	PA	EPA 8260 B	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	PA
EPA 8260 B	IODOMETHANE (METHYL IODIDE)	PA	EPA 8260 B	ISOBUTYL ALCOHOL (2-METHYL-1-PROPANOL)	PA
EPA 8260 B	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	PA	EPA 8260 B	ISOPROPYLBENZENE	PA
EPA 8260 B	M+P-XYLENE	PA	EPA 8260 B	METHACRYLONITRILE	PA
EPA 8260 B	METHYL BROMIDE (BROMOMETHANE)	PA	EPA 8260 B	METHYL CHLORIDE (CHLOROMETHANE)	PA
EPA 8260 B	METHYL METHACRYLATE	PA	EPA 8260 B	METHYL TERT-BUTYL ETHER (MTBE)	PA
EPA 8260 B	METHYLENE CHLORIDE (DICHLOROMETHANE)	PA	EPA 8260 B	N-BUTYLBENZENE	PA
EPA 8260 B	N-PROPYLAMINE	PA	EPA 8260 B	N-PROPYLBENZENE	PA
EPA 8260 B	NAPHTHALENE	PA	EPA 8260 B	O-XYLENE	PA
EPA 8260 B	PENTACHLOROETHANE	PA	EPA 8260 B	PROPIONITRILE (ETHYL CYANIDE)	PA
EPA 8260 B	SEC-BUTYLBENZENE	PA	EPA 8260 B	STYRENE	PA
EPA 8260 B	TERT-BUTYL ALCOHOL	PA	EPA 8260 B	TERT-BUTYLBENZENE	PA
EPA 8260 B	TETRACHLOROETHENE (PERCHLOROETHENE)	PA	EPA 8260 B	TOLUENE	PA
EPA 8260 B	TRANS-1,2-DICHLOROETHENE	PA	EPA 8260 B	TRANS-1,3-DICHLOROPROPENE	PA
EPA 8260 B	TRANS-1,4-DICHLORO-2-BUTENE	PA	EPA 8260 B	TRICHLOROETHENE (TRICHLOROETHYLENE)	PA
EPA 8260 B	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	PA	EPA 8260 B	VINYL ACETATE	PA
EPA 8260 B	VINYL CHLORIDE	PA	EPA 8260 B	XYLENE (TOTAL)	PA
EPA 8260 B - EXTENDED	1,1,2-TRICHLORO-1,2,2-TRIFLUORO ETHANE (FREON 113)	PA	EPA 8260 B - EXTENDED	CYCLOHEXANE	PA
EPA 8260 B - EXTENDED	DIISOPROPYLETHER (DIPE, ISOPROPYL ETHER)	PA	EPA 8260 B - EXTENDED	ETHYL-T-BUTYLETHER (2-ETHOXY-2-METHYLPROPANE, ETBE)	PA
EPA 8260 B - EXTENDED	GASOLINE RANGE ORGANICS (GRO)	PA	EPA 8260 B - EXTENDED	METHYL ACETATE	PA

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 7815

Eurofins Lancaster Laboratories Environmental, LLC
2425 New Holland Pike
Lancaster, PA 17601

Virginia Laboratory ID: 460182
Effective Date: June 15, 2015
Expiration Date: June 14, 2016

NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8260 B - EXTENDED	METHYLCYCLOHEXANE	PA	EPA 8260 B - EXTENDED	N-HEXANE	PA
EPA 8260 B - EXTENDED	T-AMYL ALCOHOL (TAA)	PA	EPA 8260 B - EXTENDED	T-AMYLMETHYLETHER (TAME)	PA
EPA 8260 B - EXTENDED	TETRAHYDROFURAN (THF)	PA	EPA 8260 C	1,1,1,2-TETRACHLOROETHANE	PA
EPA 8260 C	1,1,1-TRICHLOROETHANE	PA	EPA 8260 C	1,1,2,2-TETRACHLOROETHANE	PA
EPA 8260 C	1,1,2-TRICHLOROETHANE	PA	EPA 8260 C	1,1-DICHLOROETHANE	PA
EPA 8260 C	1,1-DICHLOROETHYLENE	PA	EPA 8260 C	1,1-DICHLOROPROPENE	PA
EPA 8260 C	1,2,3-TRICHLOROBENZENE	PA	EPA 8260 C	1,2,3-TRICHLOROPROPANE	PA
EPA 8260 C	1,2,4-TRICHLOROBENZENE	PA	EPA 8260 C	1,2,4-TRIMETHYLBENZENE	PA
EPA 8260 C	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	PA	EPA 8260 C	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	PA
EPA 8260 C	1,2-DICHLOROBENZENE	PA	EPA 8260 C	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	PA
EPA 8260 C	1,2-DICHLOROPROPANE	PA	EPA 8260 C	1,3,5-TRIMETHYLBENZENE	PA
EPA 8260 C	1,3-DICHLOROBENZENE	PA	EPA 8260 C	1,3-DICHLOROPROPANE	PA
EPA 8260 C	1,4-DICHLOROBENZENE	PA	EPA 8260 C	1,4-DIOXANE (1,4-DIETHYLENEOXIDE)	PA
EPA 8260 C	1-BUTANOL (N-BUTANOL)	PA	EPA 8260 C	2,2-DICHLOROPROPANE	PA
EPA 8260 C	2-BUTANONE (METHYL ETHYL KETONE, MEK)	PA	EPA 8260 C	2-CHLOROETHYL VINYL ETHER	PA
EPA 8260 C	2-CHLOROTOLUENE	PA	EPA 8260 C	2-HEXANONE	PA
EPA 8260 C	2-NITROPROPANE	PA	EPA 8260 C	4-CHLOROTOLUENE	PA
EPA 8260 C	4-ISOPROPYLTOLUENE (P-CYMENE)	PA	EPA 8260 C	4-METHYL-2-PENTANONE (MIBK)	PA
EPA 8260 C	ACETONE	PA	EPA 8260 C	ACETONITRILE	PA
EPA 8260 C	ACROLEIN (PROPENAL)	PA	EPA 8260 C	ACRYLONITRILE	PA
EPA 8260 C	ALLYL CHLORIDE (3-CHLOROPROPENE)	PA	EPA 8260 C	BENZENE	PA
EPA 8260 C	BENZYL CHLORIDE	PA	EPA 8260 C	BROMOBENZENE	PA
EPA 8260 C	BROMOCHLOROMETHANE	PA	EPA 8260 C	BROMODICHLOROMETHANE	PA
EPA 8260 C	BROMOFORM	PA	EPA 8260 C	CARBON DISULFIDE	PA
EPA 8260 C	CARBON TETRACHLORIDE	PA	EPA 8260 C	CHLOROBENZENE	PA
EPA 8260 C	CHLORODIBROMOMETHANE	PA	EPA 8260 C	CHLOROETHANE (ETHYL CHLORIDE)	PA
EPA 8260 C	CHLOROFORM	PA	EPA 8260 C	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	PA
EPA 8260 C	CIS-1,2-DICHLOROETHYLENE	PA	EPA 8260 C	CIS-1,3-DICHLOROPROPENE	PA
EPA 8260 C	CYCLOHEXANE	PA	EPA 8260 C	DIBROMOMETHANE (METHYLENE BROMIDE)	PA
EPA 8260 C	DICHLORODIFLUOROMETHANE (FREON-12)	PA	EPA 8260 C	DIETHYL ETHER	PA
EPA 8260 C	EPICHLOROHYDRIN (1-CHLORO-2,3-EPOXYPROPANE)	PA	EPA 8260 C	ETHANOL	PA
EPA 8260 C	ETHYL ACETATE	PA	EPA 8260 C	ETHYL METHACRYLATE	PA

Commonwealth of Virginia

Department of General Services
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Scope of Accreditation

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Virginia Laboratory ID: 460182
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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8260 C	ETHYL-T-BUTYLETHER (2-ETHOXY-2-METHYLPROPANE, ETBE)	PA	EPA 8260 C	ETHYLBENZENE	PA
EPA 8260 C	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	PA	EPA 8260 C	HEXACHLOROETHANE	PA
EPA 8260 C	IODOMETHANE (METHYL IODIDE)	PA	EPA 8260 C	ISOBUTYL ALCOHOL (2-METHYL-1-PROPANOL)	PA
EPA 8260 C	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	PA	EPA 8260 C	ISOPROPYLBENZENE	PA
EPA 8260 C	METHACRYLONITRILE	PA	EPA 8260 C	METHYL BROMIDE (BROMOMETHANE)	PA
EPA 8260 C	METHYL CHLORIDE (CHLOROMETHANE)	PA	EPA 8260 C	METHYL METHACRYLATE	PA
EPA 8260 C	METHYL TERT-BUTYL ETHER (MTBE)	PA	EPA 8260 C	METHYLCYCLOHEXANE	PA
EPA 8260 C	METHYLENE CHLORIDE (DICHLOROMETHANE)	PA	EPA 8260 C	N-BUTYLBENZENE	PA
EPA 8260 C	N-PROPYLBENZENE	PA	EPA 8260 C	NAPHTHALENE	PA
EPA 8260 C	PENTACHLOROETHANE	PA	EPA 8260 C	PROPIONITRILE (ETHYL CYANIDE)	PA
EPA 8260 C	SEC-BUTYLBENZENE	PA	EPA 8260 C	STYRENE	PA
EPA 8260 C	T-AMYLMETHYLETHER (TAME)	PA	EPA 8260 C	TERT-BUTYL ALCOHOL	PA
EPA 8260 C	TERT-BUTYLBENZENE	PA	EPA 8260 C	TETRACHLOROETHENE (PERCHLOROETHENE)	PA
EPA 8260 C	TOLUENE	PA	EPA 8260 C	TRANS-1,2-DICHLOROETHENE	PA
EPA 8260 C	TRANS-1,3-DICHLOROPROPENE	PA	EPA 8260 C	TRANS-1,4-DICHLORO-2-BUTENE	PA
EPA 8260 C	TRICHLOROETHENE (TRICHLOROETHYLENE)	PA	EPA 8260 C	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	PA
EPA 8260 C	VINYL ACETATE	PA	EPA 8260 C	VINYL CHLORIDE	PA
EPA 8260 C	XYLENE (TOTAL)	PA	EPA 8260 C - EXTENDED	1,1,2-TRICHLORO-1,2,2-TRIFLUORO ETHANE (FREON 113)	PA
EPA 8260 C - EXTENDED	CYCLOHEXANONE	PA	EPA 8260 C - EXTENDED	DIISOPROPYLETHER (DIPE, ISOPROPYL ETHER)	PA
EPA 8260 C - EXTENDED	DIMETHYL ETHER	PA	EPA 8260 C - EXTENDED	GASOLINE RANGE ORGANICS (GRO)	PA
EPA 8260 C - EXTENDED	METHYL ACETATE	PA	EPA 8260 C - EXTENDED	N-HEPTANE	PA
EPA 8260 C - EXTENDED	T-AMYL ALCOHOL (TAA)	PA	EPA 8260 C - EXTENDED	TETRAHYDROFURAN (THF)	PA
EPA 8270 C	1,2,4,5-TETRACHLOROBENZENE	PA	EPA 8270 C	1,2,4-TRICHLOROBENZENE	PA
EPA 8270 C	1,2-DICHLOROBENZENE	PA	EPA 8270 C	1,2-DIPHENYLHYDRAZINE	PA
EPA 8270 C	1,3,5-TRINITROBENZENE (1,3,5-TNB)	PA	EPA 8270 C	1,3-DICHLOROBENZENE	PA
EPA 8270 C	1,3-DINITROBENZENE (1,3-DNB)	PA	EPA 8270 C	1,4-DICHLOROBENZENE	PA
EPA 8270 C	1,4-DINITROBENZENE	PA	EPA 8270 C	1,4-NAPHTHOQUINONE	PA
EPA 8270 C	1,4-PHENYLENEDIAMINE	PA	EPA 8270 C	1-CHLORONAPHTHALENE	PA
EPA 8270 C	1-NAPHTHYLAMINE	PA	EPA 8270 C	2,3,4,6-TETRACHLOROPHENOL	PA
EPA 8270 C	2,4,5-TRICHLOROPHENOL	PA	EPA 8270 C	2,4,6-TRICHLOROPHENOL	PA

Commonwealth of Virginia

Department of General Services
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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8270 C	2,4-DICHLOROPHENOL	PA	EPA 8270 C	2,4-DIMETHYLPHENOL	PA
EPA 8270 C	2,4-DINITROPHENOL	PA	EPA 8270 C	2,4-DINITROTOLUENE (2,4-DNT)	PA
EPA 8270 C	2,6-DICHLOROPHENOL	PA	EPA 8270 C	2,6-DINITROTOLUENE (2,6-DNT)	PA
EPA 8270 C	2-ACETYLAMINOFLUORENE	PA	EPA 8270 C	2-CHLORONAPHTHALENE	PA
EPA 8270 C	2-CHLOROPHENOL	PA	EPA 8270 C	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	PA
EPA 8270 C	2-METHYLNAPHTHALENE	PA	EPA 8270 C	2-METHYLPHENOL (O-CRESOL)	PA
EPA 8270 C	2-NAPHTHYLAMINE	PA	EPA 8270 C	2-NITROANILINE	PA
EPA 8270 C	2-NITROPHENOL	PA	EPA 8270 C	2-PICOLINE (2-METHYLPYRIDINE)	PA
EPA 8270 C	3,3'-DICHLOROBENZIDINE	PA	EPA 8270 C	3,3'-DIMETHYLBENZIDINE	PA
EPA 8270 C	3-METHYLCHOLANTHRENE	PA	EPA 8270 C	3-METHYLPHENOL (M-CRESOL)	PA
EPA 8270 C	3-NITROANILINE	PA	EPA 8270 C	4,4'-METHYLENEBIS(2-CHLOROANILINE)	PA
EPA 8270 C	4-AMINOBIPHENYL	PA	EPA 8270 C	4-BROMOPHENYL PHENYL ETHER	PA
EPA 8270 C	4-CHLORO-3-METHYLPHENOL	PA	EPA 8270 C	4-CHLOROANILINE	PA
EPA 8270 C	4-CHLOROPHENYL PHENYLETHER	PA	EPA 8270 C	4-DIMETHYL AMINOAZOBENZENE	PA
EPA 8270 C	4-METHYLPHENOL (P-CRESOL)	PA	EPA 8270 C	4-NITROANILINE	PA
EPA 8270 C	4-NITROPHENOL	PA	EPA 8270 C	4-NITROQUINOLINE-1-OXIDE	PA
EPA 8270 C	5-NITRO-O-TOLUIDINE	PA	EPA 8270 C	7,12-DIMETHYLBENZ(A) ANTHRACENE	PA
EPA 8270 C	A-A-DIMETHYLPHENETHYLAMINE	PA	EPA 8270 C	ACENAPHTHENE	PA
EPA 8270 C	ACENAPHTHYLENE	PA	EPA 8270 C	ACETOPHENONE	PA
EPA 8270 C	ANILINE	PA	EPA 8270 C	ANTHRACENE	PA
EPA 8270 C	ARAMITE	PA	EPA 8270 C	BENZIDINE	PA
EPA 8270 C	BENZO(A)ANTHRACENE	PA	EPA 8270 C	BENZO(A)PYRENE	PA
EPA 8270 C	BENZO(B)FLUORANTHENE	PA	EPA 8270 C	BENZO(G,H,I)PERYLENE	PA
EPA 8270 C	BENZO(K)FLUORANTHENE	PA	EPA 8270 C	BENZOIC ACID	PA
EPA 8270 C	BENZYL ALCOHOL	PA	EPA 8270 C	BIS(2-CHLOROETHOXY)METHANE	PA
EPA 8270 C	BIS(2-CHLOROETHYL) ETHER	PA	EPA 8270 C	BIS(2-CHLOROISOPROPYL) ETHER	PA
EPA 8270 C	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	PA	EPA 8270 C	BUTYL BENZYL PHTHALATE	PA
EPA 8270 C	CHLOROBENZILATE	PA	EPA 8270 C	CHRYSENE	PA
EPA 8270 C	DI-N-BUTYL PHTHALATE	PA	EPA 8270 C	DI-N-OCTYL PHTHALATE	PA
EPA 8270 C	DIALLATE	PA	EPA 8270 C	DIBENZ(A, J) ACRIDINE	PA
EPA 8270 C	DIBENZO(A,H) ANTHRACENE	PA	EPA 8270 C	DIBENZOFURAN	PA
EPA 8270 C	DIETHYL PHTHALATE	PA	EPA 8270 C	DIMETHOATE	PA
EPA 8270 C	DIMETHYL PHTHALATE	PA	EPA 8270 C	DIPHENYLAMINE	PA
EPA 8270 C	DISULFOTON	PA	EPA 8270 C	ETHYL METHANESULFONATE	PA
EPA 8270 C	FAMPHUR	PA	EPA 8270 C	FLUORANTHENE	PA
EPA 8270 C	FLUORENE	PA	EPA 8270 C	HEXACHLOROBENZENE	PA

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8270 C	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	PA	EPA 8270 C	HEXACHLOROCYCLOPENTADIENE	PA
EPA 8270 C	HEXACHLOROETHANE	PA	EPA 8270 C	HEXACHLOROPROPENE	PA
EPA 8270 C	INDENO(1,2,3-CD) PYRENE	PA	EPA 8270 C	ISODRIN	PA
EPA 8270 C	ISOPHORONE	PA	EPA 8270 C	ISOSAFROLE	PA
EPA 8270 C	KEPONE	PA	EPA 8270 C	METHAPYRILENE	PA
EPA 8270 C	METHYL METHANESULFONATE	PA	EPA 8270 C	METHYL PARATHION (PARATHION, METHYL)	PA
EPA 8270 C	N-NITROSO-DI-N-BUTYLAMINE	PA	EPA 8270 C	N-NITROSODI-N-PROPYLAMINE	PA
EPA 8270 C	N-NITROSODIETHYLAMINE	PA	EPA 8270 C	N-NITROSODIMETHYLAMINE	PA
EPA 8270 C	N-NITROSODIPHENYLAMINE	PA	EPA 8270 C	N-NITROSOMETHYLETHYLAMINE	PA
EPA 8270 C	N-NITROSOMORPHOLINE	PA	EPA 8270 C	N-NITROSOPIPERIDINE	PA
EPA 8270 C	N-NITROSOPYRROLIDINE	PA	EPA 8270 C	NAPHTHALENE	PA
EPA 8270 C	NITROBENZENE	PA	EPA 8270 C	O,O,O-TRIETHYL PHOSPHOROTHIOATE	PA
EPA 8270 C	O-TOLUIDINE (2-METHYLANILINE)	PA	EPA 8270 C	PARATHION (PARATHION - ETHYL)	PA
EPA 8270 C	PENTACHLOROBENZENE	PA	EPA 8270 C	PENTACHLORONITROBENZENE	PA
EPA 8270 C	PENTACHLOROPHENOL	PA	EPA 8270 C	PHENACETIN	PA
EPA 8270 C	PHENANTHRENE	PA	EPA 8270 C	PHENOL	PA
EPA 8270 C	PHORATE	PA	EPA 8270 C	PHTHALIC ANHYDRIDE	PA
EPA 8270 C	PRONAMIDE (KERB)	PA	EPA 8270 C	PYRENE	PA
EPA 8270 C	PYRIDINE	PA	EPA 8270 C	SAFROLE	PA
EPA 8270 C	THIONAZIN (ZINOPHOS)	PA	EPA 8270 C	THIOPHENOL (BENZENETHIOL)	PA
EPA 8270 C	TRIS-(2,3-DIBROMOPROPYL) PHOSPHATE (TRIS-BP)	PA	EPA 8270 C SIM	2-METHYLNAPHTHALENE	PA
EPA 8270 C SIM	ACENAPHTHENE	PA	EPA 8270 C SIM	ACENAPHTHYLENE	PA
EPA 8270 C SIM	ANTHRACENE	PA	EPA 8270 C SIM	BENZO(A)ANTHRACENE	PA
EPA 8270 C SIM	BENZO(A)PYRENE	PA	EPA 8270 C SIM	BENZO(B)FLUORANTHENE	PA
EPA 8270 C SIM	BENZO(G,H,I)PERYLENE	PA	EPA 8270 C SIM	BENZO(K)FLUORANTHENE	PA
EPA 8270 C SIM	CHRYSENE	PA	EPA 8270 C SIM	DIBENZO(A,H) ANTHRACENE	PA
EPA 8270 C SIM	FLUORANTHENE	PA	EPA 8270 C SIM	FLUORENE	PA
EPA 8270 C SIM	INDENO(1,2,3-CD) PYRENE	PA	EPA 8270 C SIM	NAPHTHALENE	PA
EPA 8270 C SIM	PHENANTHRENE	PA	EPA 8270 C SIM	PYRENE	PA
EPA 8270 C SIM - EXTENDED	1-METHYLNAPHTHALENE	PA	EPA 8270 D	1,2,4,5-TETRACHLOROBENZENE	PA
EPA 8270 D	1,2,4-TRICHLOROBENZENE	PA	EPA 8270 D	1,2-DICHLOROBENZENE	PA
EPA 8270 D	1,2-DIPHENYLHYDRAZINE	PA	EPA 8270 D	1,3,5-TRINITROBENZENE (1,3,5-TNB)	PA
EPA 8270 D	1,3-DICHLOROBENZENE	PA	EPA 8270 D	1,3-DINITROBENZENE (1,3-DNB)	PA
EPA 8270 D	1,4-DICHLOROBENZENE	PA	EPA 8270 D	1,4-DINITROBENZENE	PA
EPA 8270 D	1,4-NAPHTHOQUINONE	PA	EPA 8270 D	1,4-PHENYLENEDIAMINE	PA
EPA 8270 D	1-CHLORONAPHTHALENE	PA	EPA 8270 D	1-NAPHTHYLAMINE	PA

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8270 D	2,3,4,6-TETRACHLOROPHENOL	PA	EPA 8270 D	2,4,5-TRICHLOROPHENOL	PA
EPA 8270 D	2,4,6-TRICHLOROPHENOL	PA	EPA 8270 D	2,4-DICHLOROPHENOL	PA
EPA 8270 D	2,4-DIMETHYLPHENOL	PA	EPA 8270 D	2,4-DINITROPHENOL	PA
EPA 8270 D	2,4-DINITROTOLUENE (2,4-DNT)	PA	EPA 8270 D	2,6-DICHLOROPHENOL	PA
EPA 8270 D	2,6-DINITROTOLUENE (2,6-DNT)	PA	EPA 8270 D	2-ACETYLAMINOFLUORENE	PA
EPA 8270 D	2-CHLORONAPHTHALENE	PA	EPA 8270 D	2-CHLOROPHENOL	PA
EPA 8270 D	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	PA	EPA 8270 D	2-METHYLNAPHTHALENE	PA
EPA 8270 D	2-METHYLPHENOL (O-CRESOL)	PA	EPA 8270 D	2-NAPHTHYLAMINE	PA
EPA 8270 D	2-NITROANILINE	PA	EPA 8270 D	2-NITROPHENOL	PA
EPA 8270 D	2-PICOLINE (2-METHYLPYRIDINE)	PA	EPA 8270 D	3,3'-DICHLOROBENZIDINE	PA
EPA 8270 D	3,3'-DIMETHYLBENZIDINE	PA	EPA 8270 D	3-METHYLCHOLANTHRENE	PA
EPA 8270 D	3-METHYLPHENOL (M-CRESOL)	PA	EPA 8270 D	3-NITROANILINE	PA
EPA 8270 D	4,4'-METHYLENEBIS(2-CHLOROANILINE)	PA	EPA 8270 D	4-AMINOBIPHENYL	PA
EPA 8270 D	4-BROMOPHENYL PHENYL ETHER	PA	EPA 8270 D	4-CHLORO-3-METHYLPHENOL	PA
EPA 8270 D	4-CHLOROANILINE	PA	EPA 8270 D	4-CHLOROPHENYL PHENYLETHER	PA
EPA 8270 D	4-DIMETHYL AMINOAZOBENZENE	PA	EPA 8270 D	4-METHYLPHENOL (P-CRESOL)	PA
EPA 8270 D	4-NITROANILINE	PA	EPA 8270 D	4-NITROPHENOL	PA
EPA 8270 D	4-NITROQUINOLINE-1-OXIDE	PA	EPA 8270 D	5-NITRO-O-TOLUIDINE	PA
EPA 8270 D	7,12-DIMETHYLBENZ(A) ANTHRACENE	PA	EPA 8270 D	A-A-DIMETHYLPHENETHYLAMINE	PA
EPA 8270 D	ACENAPHTHENE	PA	EPA 8270 D	ACENAPHTHYLENE	PA
EPA 8270 D	ACETOPHENONE	PA	EPA 8270 D	ANILINE	PA
EPA 8270 D	ANTHRACENE	PA	EPA 8270 D	ARAMITE	PA
EPA 8270 D	BENZIDINE	PA	EPA 8270 D	BENZO(A)ANTHRACENE	PA
EPA 8270 D	BENZO(A)PYRENE	PA	EPA 8270 D	BENZO(B)FLUORANTHENE	PA
EPA 8270 D	BENZO(G,H,I)PERYLENE	PA	EPA 8270 D	BENZO(K)FLUORANTHENE	PA
EPA 8270 D	BENZOIC ACID	PA	EPA 8270 D	BENZYL ALCOHOL	PA
EPA 8270 D	BIS(2-CHLOROETHOXY)METHANE	PA	EPA 8270 D	BIS(2-CHLOROETHYL) ETHER	PA
EPA 8270 D	BIS(2-CHLOROISOPROPYL) ETHER	PA	EPA 8270 D	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	PA
EPA 8270 D	BUTYL BENZYL PHTHALATE	PA	EPA 8270 D	CHLOROBENZILATE	PA
EPA 8270 D	CHRYSENE	PA	EPA 8270 D	DI-N-BUTYL PHTHALATE	PA
EPA 8270 D	DI-N-OCTYL PHTHALATE	PA	EPA 8270 D	DIALLATE	PA
EPA 8270 D	DIBENZ(A, J) ACRIDINE	PA	EPA 8270 D	DIBENZO(A,H) ANTHRACENE	PA
EPA 8270 D	DIBENZOFURAN	PA	EPA 8270 D	DIETHYL PHTHALATE	PA
EPA 8270 D	DIMETHOATE	PA	EPA 8270 D	DIMETHYL PHTHALATE	PA
EPA 8270 D	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	PA	EPA 8270 D	DIPHENYLAMINE	PA

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EPA 8270 D	DISULFOTON	PA	EPA 8270 D	ETHYL METHANESULFONATE	PA
EPA 8270 D	FAMPHUR	PA	EPA 8270 D	FLUORANTHENE	PA
EPA 8270 D	FLUORENE	PA	EPA 8270 D	HEXACHLOROBENZENE	PA
EPA 8270 D	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	PA	EPA 8270 D	HEXACHLOROCYCLOPENTADIENE	PA
EPA 8270 D	HEXACHLOROETHANE	PA	EPA 8270 D	HEXACHLOROPROPENE	PA
EPA 8270 D	INDENO(1,2,3-CD) PYRENE	PA	EPA 8270 D	ISODRIN	PA
EPA 8270 D	ISOPHORONE	PA	EPA 8270 D	ISOSAFROLE	PA
EPA 8270 D	KEPONE	PA	EPA 8270 D	METHAPYRILENE	PA
EPA 8270 D	METHYL METHANESULFONATE	PA	EPA 8270 D	METHYL PARATHION (PARATHION, METHYL)	PA
EPA 8270 D	N-NITROSO-DI-N-BUTYLAMINE	PA	EPA 8270 D	N-NITROSODI-N-PROPYLAMINE	PA
EPA 8270 D	N-NITROSODIETHYLAMINE	PA	EPA 8270 D	N-NITROSODIMETHYLAMINE	PA
EPA 8270 D	N-NITROSODIPHENYLAMINE	PA	EPA 8270 D	N-NITROSOMETHYLETHYLAMINE	PA
EPA 8270 D	N-NITROSOMORPHOLINE	PA	EPA 8270 D	N-NITROSOPIPERIDINE	PA
EPA 8270 D	N-NITROSOPYRROLIDINE	PA	EPA 8270 D	NAPHTHALENE	PA
EPA 8270 D	NITROBENZENE	PA	EPA 8270 D	O,O,O-TRIETHYL PHOSPHOROTHIOATE	PA
EPA 8270 D	O-TOLUIDINE (2-METHYLANILINE)	PA	EPA 8270 D	PARATHION (PARATHION - ETHYL)	PA
EPA 8270 D	PENTACHLOROBENZENE	PA	EPA 8270 D	PENTACHLORONITROBENZENE	PA
EPA 8270 D	PENTACHLOROPHENOL	PA	EPA 8270 D	PHENACETIN	PA
EPA 8270 D	PHENANTHRENE	PA	EPA 8270 D	PHENOL	PA
EPA 8270 D	PHORATE	PA	EPA 8270 D	PHTHALIC ANHYDRIDE	PA
EPA 8270 D	PRONAMIDE (KERB)	PA	EPA 8270 D	PYRENE	PA
EPA 8270 D	SAFROLE	PA	EPA 8270 D	THIONAZIN (ZINOPHOS)	PA
EPA 8270 D	TRIS-(2,3-DIBROMOPROPYL) PHOSPHATE (TRIS-BP)	PA	EPA 8270 D - EXTENDED	1,1'-BIPHENYL	PA
EPA 8270 D - EXTENDED	1-METHYLNAPHTHALENE	PA	EPA 8270 D - EXTENDED	ATRAZINE	PA
EPA 8270 D - EXTENDED	BENZALDEHYDE	PA	EPA 8270 D - EXTENDED	CAPROLACTAM	PA
EPA 8270 D - EXTENDED	CARBAZOLE	PA	EPA 8270 D - EXTENDED	PYRIDINE	PA
EPA 8270 D SIM	2-METHYLNAPHTHALENE	PA	EPA 8270 D SIM	ACENAPHTHENE	PA
EPA 8270 D SIM	ACENAPHTHYLENE	PA	EPA 8270 D SIM	ANTHRACENE	PA
EPA 8270 D SIM	BENZO(A)ANTHRACENE	PA	EPA 8270 D SIM	BENZO(A)PYRENE	PA
EPA 8270 D SIM	BENZO(B)FLUORANTHENE	PA	EPA 8270 D SIM	BENZO(G,H,I)PERYLENE	PA
EPA 8270 D SIM	BENZO(K)FLUORANTHENE	PA	EPA 8270 D SIM	CHRYSENE	PA
EPA 8270 D SIM	FLUORANTHENE	PA	EPA 8270 D SIM	FLUORENE	PA
EPA 8270 D SIM	INDENO(1,2,3-CD) PYRENE	PA	EPA 8270 D SIM	NAPHTHALENE	PA
EPA 8270 D SIM	PHENANTHRENE	PA	EPA 8270 D SIM	PYRENE	PA
EPA 8270 D SIM - EXTENDED	1-METHYLNAPHTHALENE	PA	EPA 8270 D SIM - EXTENDED	DIBENZO(A,H) PYRENE	PA
EPA 8290 A	1,2,3,4,6,7,8,9-OCTACHLORODIBENZO-P-DIOXIN (OCDD)	PA	EPA 8290 A	1,2,3,4,6,7,8,9-OCTACHLORODIBENZOFURAN (OCDF)	PA

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EPA 8290 A	1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN (1,2,3,4,6,7,8-HPCDD)	PA	EPA 8290 A	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN (1,2,3,4,6,7,8-HPCDF)	PA
EPA 8290 A	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN (1,2,3,4,7,8,9-HPCDF)	PA	EPA 8290 A	1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN (1,2,3,4,7,8-HXCDD)	PA
EPA 8290 A	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN (1,2,3,4,7,8-HXCDF)	PA	EPA 8290 A	1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN(1,2,3,6,7,8-HXCDD)	PA
EPA 8290 A	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN (1,2,3,6,7,8-HXCDF)	PA	EPA 8290 A	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN (1,2,3,7,8,9-HXCDD)	PA
EPA 8290 A	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN (1,2,3,7,8,9-HXCDF)	PA	EPA 8290 A	1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN (1,2,3,7,8-PECDD)	PA
EPA 8290 A	1,2,3,7,8-PENTACHLORODIBENZOFURAN (1,2,3,7,8-PECDF)	PA	EPA 8290 A	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN (2,3,4,6,7,8-HXCDF)	PA
EPA 8290 A	2,3,4,7,8-PENTACHLORODIBENZOFURAN	PA	EPA 8290 A	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (2,3,7,8-TCDD)	PA
EPA 8290 A	2,3,7,8-TETRACHLORODIBENZOFURAN (2,3,7,8-TCDF)	PA	EPA 8315 A	ACETALDEHYDE	PA
EPA 8315 A	BENZALDEHYDE	PA	EPA 8315 A	BUTYLALDEHYDE (BUTANAL)	PA
EPA 8315 A	CROTONALDEHYDE	PA	EPA 8315 A	FORMALDEHYDE	PA
EPA 8315 A	HEXANALDEHYDE (HEXANAL)	PA	EPA 8315 A	ISOVALERALDEHYDE	PA
EPA 8315 A	M-TOLUALDEHYDE (1,3-TOLUALDEHYDE)	PA	EPA 8315 A	O-TOLUALDEHYDE (1,2-TOLUALDEHYDE)	PA
EPA 8315 A	P-TOLUALDEHYDE (1,4-TOLUALDEHYDE)	PA	EPA 8315 A	PENTANAL (VALERALDEHYDE)	PA
EPA 8315 A	PROPIONALDEHYDE (PROPANAL)	PA	EPA 8330 A	1,3,5-TRINITROBENZENE (1,3,5-TNB)	PA
EPA 8330 A	1,3-DINITROBENZENE (1,3-DNB)	PA	EPA 8330 A	2,4,6-TRINITROTOLUENE (2,4,6-TNT)	PA
EPA 8330 A	2,4-DINITROTOLUENE (2,4-DNT)	PA	EPA 8330 A	2,6-DINITROTOLUENE (2,6-DNT)	PA
EPA 8330 A	2-AMINO-4,6-DINITROTOLUENE (2-AM-DNT)	PA	EPA 8330 A	2-NITROTOLUENE	PA
EPA 8330 A	3-NITROTOLUENE	PA	EPA 8330 A	4-AMINO-2,6-DINITROTOLUENE (4-AM-DNT)	PA
EPA 8330 A	4-NITROTOLUENE	PA	EPA 8330 A	METHYL-2,4,6-TRINITROPHENYLNITRAMINE (TETRYL)	PA
EPA 8330 A	NITROBENZENE	PA	EPA 8330 A	NITROGLYCERIN	PA
EPA 8330 A	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	PA	EPA 8330 A	RDX (HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE)	PA
EPA 9012 A	TOTAL CYANIDE	PA	EPA 9012 B	TOTAL CYANIDE	PA
EPA 9040 C	PH	PA	EPA 9050 A	CONDUCTIVITY	PA
EPA 9056 A	BROMIDE	PA	EPA 9056 A	CHLORIDE	PA
EPA 9056 A	FLUORIDE	PA	EPA 9056 A	NITRATE AS N	PA
EPA 9056 A	NITRITE	PA	EPA 9056 A	SULFATE	PA
EPA 9066	TOTAL PHENOLICS	PA	OIA-1677-09	AMENABLE CYANIDE	PA
OIA-1677-09	FREE CYANIDE	PA	RSK-175	ETHANE	PA
RSK-175	ETHENE	PA	RSK-175	METHANE	PA
SM 2120 B-2001	COLOR	PA	SM 2310 B-1997	ACIDITY, AS CACO3	PA

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SM 2320 B-1997	ALKALINITY AS CACO3	PA	SM 2340 C-1997	TOTAL HARDNESS AS CACO3	PA
SM 2510 B-1997	CONDUCTIVITY	PA	SM 2540 B-1997	RESIDUE-TOTAL	PA
SM 2540 C-1997	RESIDUE-FILTERABLE (TDS)	PA	SM 2540 D-1997	RESIDUE-NONFILTERABLE (TSS)	PA
SM 2540 F-1997	RESIDUE-SETTLEABLE	PA	SM 3500-CR B-2009	CHROMIUM VI	PA
SM 4500-F⁻ B-1997	FLUORIDE	PA	SM 4500-F⁻ C-1997	FLUORIDE	PA
SM 4500-NH3 B-1997	AMMONIA AS N	PA	SM 4500-NH3 D-1997	AMMONIA AS N	PA
SM 4500-P E-1999	ORTHOPHOSPHATE AS P	PA	SM 4500-P F-1999	PHOSPHORUS, TOTAL	PA
SM 4500-S2⁻ D-2000	SULFIDE	PA	SM 4500-SIO2 C-1997	SILICA AS SIO2	PA
SM 5210 B-2001	BIOCHEMICAL OXYGEN DEMAND	PA	SM 5210 B-2001	CARBONACEOUS BOD, CBOD	PA
SM 5310 C-2000	TOTAL ORGANIC CARBON	PA	SM 5540 C-2000	SURFACTANTS - MBAS	PA
SM 9222 D-1997	FECAL COLIFORMS	PA			

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 1010 A	FLASHPOINT	PA	EPA 1311	PREP: TOXICITY CHARACTERISTIC LEACHING PROCEDURE	PA
EPA 1312	PREP: SYNTHETIC PRECIPITATION LEACHING PROCEDURE	PA	EPA 1668 A	2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL (BZ-206)	PA
EPA 1668 A	2,2',3,3',4,4',5,5'-OCTACHLOROBIPHENYL (BZ-194)	PA	EPA 1668 A	2,2',3,3',4,4',5,6'-OCTACHLOROBIPHENYL (BZ-196)	PA
EPA 1668 A	2,2',3,3',4,4',5,6,6'-NONACHLOROBIPHENYL (BZ-207)	PA	EPA 1668 A	2,2',3,3',4,4',5,6-OCTACHLOROBIPHENYL BZ-195)	PA
EPA 1668 A	2,2',3,3',4,4',5-HEPTACHLOROBIPHENYL (BZ-170)	PA	EPA 1668 A	2,2',3,3',4,4',6,6'-OCTACHLOROBIPHENYL (BZ-197)	PA
EPA 1668 A	2,2',3,3',4,4',6-HEPTACHLOROBIPHENYL (BZ-171)	PA	EPA 1668 A	2,2',3,3',4,4'-HEXACHLOROBIPHENYL (BZ-128)	PA
EPA 1668 A	2,2',3,3',4,5',6'-HEPTACHLOROBIPHENYL (BZ-177)	PA	EPA 1668 A	2,2',3,3',4,5',6,6'-OCTACHLOROBIPHENYL (BZ-201)	PA
EPA 1668 A	2,2',3,3',4,5',6-HEPTACHLOROBIPHENYL (BZ-175)	PA	EPA 1668 A	2,2',3,3',4,5'-HEXACHLOROBIPHENYL (BZ-130)	PA
EPA 1668 A	2,2',3,3',4,5,5',6'-OCTACHLOROBIPHENYL (BZ-199)	PA	EPA 1668 A	2,2',3,3',4,5,5',6,6'-NONACHLOROBIPHENYL (BZ-208)	PA
EPA 1668 A	2,2',3,3',4,5,5',6-OCTACHLOROBIPHENYL (BZ-198)	PA	EPA 1668 A	2,2',3,3',4,5,5'-HEPTACHLOROBIPHENYL (BZ-172)	PA
EPA 1668 A	2,2',3,3',4,5,6'-HEPTACHLOROBIPHENYL (BZ-174)	PA	EPA 1668 A	2,2',3,3',4,5,6,6'-OCTACHLOROBIPHENYL (BZ-200)	PA
EPA 1668 A	2,2',3,3',4,5,6-HEPTACHLOROBIPHENYL (BZ-173)	PA	EPA 1668 A	2,2',3,3',4,5-HEXACHLOROBIPHENYL (BZ-129)	PA
EPA 1668 A	2,2',3,3',4,6'-HEXACHLOROBIPHENYL (BZ-132)	PA	EPA 1668 A	2,2',3,3',4,6,6'-HEPTACHLOROBIPHENYL (BZ-176)	PA
EPA 1668 A	2,2',3,3',4,6-HEXACHLOROBIPHENYL (BZ-131)	PA	EPA 1668 A	2,2',3,3',4-PENTACHLOROBIPHENYL (BZ-82)	PA
EPA 1668 A	2,2',3,3',5,5',6,6'-OCTACHLOROBIPHENYL (BZ-202)	PA	EPA 1668 A	2,2',3,3',5,5',6-HEPTACHLOROBIPHENYL (BZ-178)	PA
EPA 1668 A	2,2',3,3',5,5'-HEXACHLOROBIPHENYL (BZ-133)	PA	EPA 1668 A	2,2',3,3',5,6'-HEXACHLOROBIPHENYL (BZ-135)	PA

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EPA 1668 A	2,2',3,3',5,6,6'-HEPTACHLOROBIPHENYL (BZ-179)	PA	EPA 1668 A	2,2',3,3',5,6-HEXACHLOROBIPHENYL (BZ-134)	PA
EPA 1668 A	2,2',3,3',5-PENTACHLOROBIPHENYL (BZ-83)	PA	EPA 1668 A	2,2',3,3',6,6'-HEXACHLOROBIPHENYL (BZ-136)	PA
EPA 1668 A	2,2',3,3',6-PENTACHLOROBIPHENYL (BZ-84)	PA	EPA 1668 A	2,2',3,3'-TETRACHLOROBIPHENYL (BZ-40)	PA
EPA 1668 A	2,2',3,4',5',6-HEXACHLOROBIPHENYL (BZ-149)	PA	EPA 1668 A	2,2',3,4',5'-PENTACHLOROBIPHENYL (BZ-97)	PA
EPA 1668 A	2,2',3,4',5,5',6-HEPTACHLOROBIPHENYL (BZ-187)	PA	EPA 1668 A	2,2',3,4',5,5'-HEXACHLOROBIPHENYL (BZ-146)	PA
EPA 1668 A	2,2',3,4',5,6'-HEXACHLOROBIPHENYL (BZ-148)	PA	EPA 1668 A	2,2',3,4',5,6,6'-HEPTACHLOROBIPHENYL (BZ-188)	PA
EPA 1668 A	2,2',3,4',5,6-HEXACHLOROBIPHENYL (BZ-147)	PA	EPA 1668 A	2,2',3,4',5-PENTACHLOROBIPHENYL (BZ-90)	PA
EPA 1668 A	2,2',3,4',6'-PENTACHLOROBIPHENYL (BZ-98)	PA	EPA 1668 A	2,2',3,4',6,6'-HEXACHLOROBIPHENYL (BZ-150)	PA
EPA 1668 A	2,2',3,4',6-PENTACHLOROBIPHENYL (BZ-91)	PA	EPA 1668 A	2,2',3,4'-TETRACHLOROBIPHENYL (BZ-42)	PA
EPA 1668 A	2,2',3,4,4',5',6-HEPTACHLOROBIPHENYL (BZ-183)	PA	EPA 1668 A	2,2',3,4,4',5'-HEXACHLOROBIPHENYL (BZ-138)	PA
EPA 1668 A	2,2',3,4,4',5,5',6-OCTACHLOROBIPHENYL (BZ-203)	PA	EPA 1668 A	2,2',3,4,4',5,5'-HEPTACHLOROBIPHENYL (BZ-180)	PA
EPA 1668 A	2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL (BZ-182)	PA	EPA 1668 A	2,2',3,4,4',5,6,6'-OCTACHLOROBIPHENYL (BZ-204)	PA
EPA 1668 A	2,2',3,4,4',5,6-HEPTACHLOROBIPHENYL (BZ-181)	PA	EPA 1668 A	2,2',3,4,4',5-HEXACHLOROBIPHENYL (BZ-137)	PA
EPA 1668 A	2,2',3,4,4',6'-HEXACHLOROBIPHENYL (BZ-140)	PA	EPA 1668 A	2,2',3,4,4',6,6'-HEPTACHLOROBIPHENYL (BZ-184)	PA
EPA 1668 A	2,2',3,4,4',6-HEXACHLOROBIPHENYL (BZ-139)	PA	EPA 1668 A	2,2',3,4,4'-PENTACHLOROBIPHENYL (BZ-85)	PA
EPA 1668 A	2,2',3,4,5',6-HEXACHLOROBIPHENYL (BZ-144)	PA	EPA 1668 A	2,2',3,4,5'-PENTACHLOROBIPHENYL (BZ-87)	PA
EPA 1668 A	2,2',3,4,5,5',6-HEPTACHLOROBIPHENYL (BZ-185)	PA	EPA 1668 A	2,2',3,4,5,5'-HEXACHLOROBIPHENYL (BZ-141)	PA
EPA 1668 A	2,2',3,4,5,6'-HEXACHLOROBIPHENYL (BZ-143)	PA	EPA 1668 A	2,2',3,4,5,6,6'-HEPTACHLOROBIPHENYL (BZ-186)	PA
EPA 1668 A	2,2',3,4,5,6-HEXACHLOROBIPHENYL (BZ-142)	PA	EPA 1668 A	2,2',3,4,5-PENTACHLOROBIPHENYL (BZ-86)	PA
EPA 1668 A	2,2',3,4,6'-PENTACHLOROBIPHENYL (BZ-89)	PA	EPA 1668 A	2,2',3,4,6,6'-HEXACHLOROBIPHENYL (BZ-145)	PA
EPA 1668 A	2,2',3,4,6-PENTACHLOROBIPHENYL (BZ-88)	PA	EPA 1668 A	2,2',3,4-TETRACHLOROBIPHENYL (BZ-41)	PA
EPA 1668 A	2,2',3,5',6-PENTACHLOROBIPHENYL (BZ-95)	PA	EPA 1668 A	2,2',3,5'-TETRACHLOROBIPHENYL (BZ-44)	PA
EPA 1668 A	2,2',3,5,5',6-HEXACHLOROBIPHENYL (BZ-151)	PA	EPA 1668 A	2,2',3,5,5'-PENTACHLOROBIPHENYL (BZ-92)	PA
EPA 1668 A	2,2',3,5,6'-PENTACHLOROBIPHENYL (BZ-94)	PA	EPA 1668 A	2,2',3,5,6,6'-HEXACHLOROBIPHENYL (BZ-152)	PA
EPA 1668 A	2,2',3,5,6-PENTACHLOROBIPHENYL (BZ-93)	PA	EPA 1668 A	2,2',3,5-TETRACHLOROBIPHENYL (BZ-43)	PA

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EPA 1668 A	2,2',3,6'-TETRACHLOROBIPHENYL (BZ-46)	PA	EPA 1668 A	2,2',3,6,6'-PENTACHLOROBIPHENYL (BZ-96)	PA
EPA 1668 A	2,2',3,6-TETRACHLOROBIPHENYL (BZ-45)	PA	EPA 1668 A	2,2',3-TRICHLOROBIPHENYL (BZ-16)	PA
EPA 1668 A	2,2',4,4',5,5'-HEXACHLOROBIPHENYL (BZ-153)	PA	EPA 1668 A	2,2',4,4',5,6'-HEXACHLOROBIPHENYL (BZ-154)	PA
EPA 1668 A	2,2',4,4',5-PENTACHLOROBIPHENYL (BZ-99)	PA	EPA 1668 A	2,2',4,4',6,6'-HEXACHLOROBIPHENYL (BZ-155)	PA
EPA 1668 A	2,2',4,4',6-PENTACHLOROBIPHENYL (BZ-100)	PA	EPA 1668 A	2,2',4,4'-TETRACHLOROBIPHENYL (BZ-47)	PA
EPA 1668 A	2,2',4,5',6-PENTACHLOROBIPHENYL (BZ-103)	PA	EPA 1668 A	2,2',4,5'-TETRACHLOROBIPHENYL (BZ-49)	PA
EPA 1668 A	2,2',4,5,5'-PENTACHLOROBIPHENYL (BZ-101)	PA	EPA 1668 A	2,2',4,5,6'-PENTACHLOROBIPHENYL (BZ-102)	PA
EPA 1668 A	2,2',4,5-TETRACHLOROBIPHENYL (BZ-48)	PA	EPA 1668 A	2,2',4,6'-TETRACHLOROBIPHENYL (BZ-51)	PA
EPA 1668 A	2,2',4,6,6'-PENTACHLOROBIPHENYL (BZ-104)	PA	EPA 1668 A	2,2',4,6-TETRACHLOROBIPHENYL (BZ-50)	PA
EPA 1668 A	2,2',4-TRICHLOROBIPHENYL (BZ-17)	PA	EPA 1668 A	2,2',5,5'-TETRACHLOROBIPHENYL (BZ-52)	PA
EPA 1668 A	2,2',5,6'-TETRACHLOROBIPHENYL (BZ-53)	PA	EPA 1668 A	2,2',5-TRICHLOROBIPHENYL (BZ-18)	PA
EPA 1668 A	2,2',6,6'-TETRACHLOROBIPHENYL (BZ-54)	PA	EPA 1668 A	2,2',6-TRICHLOROBIPHENYL (BZ-19)	PA
EPA 1668 A	2,2'-DICHLOROBIPHENYL (BZ-4)	PA	EPA 1668 A	2,3',4',5',6-PENTACHLOROBIPHENYL (BZ-125)	PA
EPA 1668 A	2,3',4',5'-TETRACHLOROBIPHENYL (BZ-76)	PA	EPA 1668 A	2,3',4',5,5'-PENTACHLOROBIPHENYL (BZ-124)	PA
EPA 1668 A	2,3',4',5-TETRACHLOROBIPHENYL (BZ-70)	PA	EPA 1668 A	2,3',4',6-TETRACHLOROBIPHENYL (BZ-71)	PA
EPA 1668 A	2,3',4'-TRICHLOROBIPHENYL (BZ-33)	PA	EPA 1668 A	2,3',4,4',5',6-HEXACHLOROBIPHENYL (BZ-168)	PA
EPA 1668 A	2,3',4,4',5'-PENTACHLOROBIPHENYL (BZ-123)	PA	EPA 1668 A	2,3',4,4',5,5'-HEXACHLOROBIPHENYL (BZ-167)	PA
EPA 1668 A	2,3',4,4',5-PENTACHLOROBIPHENYL (BZ-118)	PA	EPA 1668 A	2,3',4,4',6-PENTACHLOROBIPHENYL (BZ-119)	PA
EPA 1668 A	2,3',4,4'-TETRACHLOROBIPHENYL (BZ-66)	PA	EPA 1668 A	2,3',4,5',6-PENTACHLOROBIPHENYL (BZ-121)	PA
EPA 1668 A	2,3',4,5'-TETRACHLOROBIPHENYL (BZ-68)	PA	EPA 1668 A	2,3',4,5,5'-PENTACHLOROBIPHENYL (BZ-120)	PA
EPA 1668 A	2,3',4,5-TETRACHLOROBIPHENYL (BZ-67)	PA	EPA 1668 A	2,3',4,6-TETRACHLOROBIPHENYL (BZ-69)	PA
EPA 1668 A	2,3',4-TRICHLOROBIPHENYL (BZ-25)	PA	EPA 1668 A	2,3',5',6-TETRACHLOROBIPHENYL (BZ-73)	PA
EPA 1668 A	2,3',5'-TRICHLOROBIPHENYL (BZ-34)	PA	EPA 1668 A	2,3',5,5'-TETRACHLOROBIPHENYL (BZ-72)	PA
EPA 1668 A	2,3',5-TRICHLOROBIPHENYL (BZ-26)	PA	EPA 1668 A	2,3',6-TRICHLOROBIPHENYL (BZ-27)	PA
EPA 1668 A	2,3'-DICHLOROBIPHENYL (BZ-6)	PA	EPA 1668 A	2,3,3',4',5',6-HEXACHLOROBIPHENYL (BZ-164)	PA

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METHOD	ANALYTE	PRIMARY
EPA 1668 A	2,3,3',4',5'-PENTACHLOROBIPHENYL (BZ-122)	PA
EPA 1668 A	2,3,3',4',5,5'-HEXACHLOROBIPHENYL (BZ-162)	PA
EPA 1668 A	2,3,3',4',5-PENTACHLOROBIPHENYL (BZ-107)	PA
EPA 1668 A	2,3,3',4'-TETRACHLOROBIPHENYL (BZ-56)	PA
EPA 1668 A	2,3,3',4,4',5'-HEXACHLOROBIPHENYL (BZ-157)	PA
EPA 1668 A	2,3,3',4,4',5,5'-HEPTACHLOROBIPHENYL (BZ-189)	PA
EPA 1668 A	2,3,3',4,4',5-HEXACHLOROBIPHENYL (BZ-156)	PA
EPA 1668 A	2,3,3',4,4'-PENTACHLOROBIPHENYL (BZ-105)	PA
EPA 1668 A	2,3,3',4,5'-PENTACHLOROBIPHENYL (BZ-108)	PA
EPA 1668 A	2,3,3',4,5,5'-HEXACHLOROBIPHENYL (BZ-159)	PA
EPA 1668 A	2,3,3',4,5-PENTACHLOROBIPHENYL (BZ-106)	PA
EPA 1668 A	2,3,3',4-TETRACHLOROBIPHENYL (BZ-55)	PA
EPA 1668 A	2,3,3',5'-TETRACHLOROBIPHENYL (BZ-58)	PA
EPA 1668 A	2,3,3',5,5'-PENTACHLOROBIPHENYL (BZ-111)	PA
EPA 1668 A	2,3,3',5-TETRACHLOROBIPHENYL (BZ-57)	PA
EPA 1668 A	2,3,3'-TRICHLOROBIPHENYL (BZ-20)	PA
EPA 1668 A	2,3,4',5-TETRACHLOROBIPHENYL (BZ-63)	PA
EPA 1668 A	2,3,4'-TRICHLOROBIPHENYL (BZ-22)	PA
EPA 1668 A	2,3,4,4',5-PENTACHLOROBIPHENYL (BZ-114)	PA
EPA 1668 A	2,3,4,4'-TETRACHLOROBIPHENYL (BZ-60)	PA
EPA 1668 A	2,3,4,5-TETRACHLOROBIPHENYL (BZ-61)	PA
EPA 1668 A	2,3,4-TRICHLOROBIPHENYL (BZ-21)	PA
EPA 1668 A	2,3,5-TRICHLOROBIPHENYL (BZ-23)	PA
EPA 1668 A	2,3-DICHLOROBIPHENYL (BZ-5)	PA
EPA 1668 A	2,4',6-TRICHLOROBIPHENYL (BZ-32)	PA
EPA 1668 A	2,4,4',5-TETRACHLOROBIPHENYL (BZ-74)	PA
EPA 1668 A	2,4,4'-TRICHLOROBIPHENYL (BZ-28)	PA
EPA 1668 A	2,3,3',4',5,5',6-HEPTACHLOROBIPHENYL (BZ-193)	PA
EPA 1668 A	2,3,3',4',5,6-HEXACHLOROBIPHENYL (BZ-163)	PA
EPA 1668 A	2,3,3',4',6-PENTACHLOROBIPHENYL (BZ-110)	PA
EPA 1668 A	2,3,3',4,4',5',6-HEPTACHLOROBIPHENYL (BZ-191)	PA
EPA 1668 A	2,3,3',4,4',5,5',6-OCTACHLOROBIPHENYL (BZ-205)	PA
EPA 1668 A	2,3,3',4,4',5,6-HEPTACHLOROBIPHENYL (BZ-190)	PA
EPA 1668 A	2,3,3',4,4',6-HEXACHLOROBIPHENYL (BZ-158)	PA
EPA 1668 A	2,3,3',4,5',6-HEXACHLOROBIPHENYL (BZ-161)	PA
EPA 1668 A	2,3,3',4,5,5',6-HEPTACHLOROBIPHENYL (BZ-192)	PA
EPA 1668 A	2,3,3',4,5,6-HEXACHLOROBIPHENYL (BZ-160)	PA
EPA 1668 A	2,3,3',4,6-PENTACHLOROBIPHENYL (BZ-109)	PA
EPA 1668 A	2,3,3',5',6-PENTACHLOROBIPHENYL (BZ-113)	PA
EPA 1668 A	2,3,3',5,5',6-HEXACHLOROBIPHENYL (BZ-165)	PA
EPA 1668 A	2,3,3',5,6-PENTACHLOROBIPHENYL (BZ-112)	PA
EPA 1668 A	2,3,3',6-TETRACHLOROBIPHENYL (BZ-59)	PA
EPA 1668 A	2,3,4',5,6-PENTACHLOROBIPHENYL (BZ-117)	PA
EPA 1668 A	2,3,4',6-TETRACHLOROBIPHENYL (BZ-64)	PA
EPA 1668 A	2,3,4,4',5,6-HEXACHLOROBIPHENYL (BZ-166)	PA
EPA 1668 A	2,3,4,4',6-PENTACHLOROBIPHENYL (BZ-115)	PA
EPA 1668 A	2,3,4,5,6-PENTACHLOROBIPHENYL (BZ-116)	PA
EPA 1668 A	2,3,4,6-TETRACHLOROBIPHENYL (BZ-62)	PA
EPA 1668 A	2,3,5,6-TETRACHLOROBIPHENYL (BZ-65)	PA
EPA 1668 A	2,3,6-TRICHLOROBIPHENYL (BZ-24)	PA
EPA 1668 A	2,4',5-TRICHLOROBIPHENYL (BZ-31)	PA
EPA 1668 A	2,4'-DICHLOROBIPHENYL (BZ-8)	PA
EPA 1668 A	2,4,4',6-TETRACHLOROBIPHENYL (BZ-75)	PA

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EPA 1668 A	2,4,5-TRICHLOROBIPHENYL (BZ-29)	PA	EPA 1668 A	2,4,6-TRICHLOROBIPHENYL (BZ-30)	PA
EPA 1668 A	2,4-DICHLOROBIPHENYL (BZ-7)	PA	EPA 1668 A	2,5-DICHLOROBIPHENYL (BZ-9)	PA
EPA 1668 A	2,6-DICHLOROBIPHENYL (BZ-10)	PA	EPA 1668 A	2-CHLOROBIPHENYL (BZ-1)	PA
EPA 1668 A	3,3',4,4',5,5'-HEXACHLOROBIPHENYL (BZ-169)	PA	EPA 1668 A	3,3',4,4',5-PENTACHLOROBIPHENYL (BZ-126)	PA
EPA 1668 A	3,3',4,4'-TETRACHLOROBIPHENYL (BZ-77)	PA	EPA 1668 A	3,3',4,5'-TETRACHLOROBIPHENYL (BZ-79)	PA
EPA 1668 A	3,3',4,5,5'-PENTACHLOROBIPHENYL (BZ-127)	PA	EPA 1668 A	3,3',4,5-TETRACHLOROBIPHENYL (BZ-78)	PA
EPA 1668 A	3,3',4-TRICHLOROBIPHENYL (BZ-35)	PA	EPA 1668 A	3,3',5,5'-TETRACHLOROBIPHENYL (BZ-80)	PA
EPA 1668 A	3,3',5-TRICHLOROBIPHENYL (BZ-36)	PA	EPA 1668 A	3,3'-DICHLOROBIPHENYL (BZ-11)	PA
EPA 1668 A	3,4',5-TRICHLOROBIPHENYL (BZ-39)	PA	EPA 1668 A	3,4'-DICHLOROBIPHENYL (BZ-13)	PA
EPA 1668 A	3,4,4',5-TETRACHLOROBIPHENYL (BZ-81)	PA	EPA 1668 A	3,4,4'-TRICHLOROBIPHENYL (BZ-37)	PA
EPA 1668 A	3,4,5-TRICHLOROBIPHENYL (BZ-38)	PA	EPA 1668 A	3,4-DICHLOROBIPHENYL (BZ-12)	PA
EPA 1668 A	3,5-DICHLOROBIPHENYL (BZ-14)	PA	EPA 1668 A	3-CHLOROBIPHENYL (BZ-2)	PA
EPA 1668 A	4,4'-DICHLOROBIPHENYL (BZ-15)	PA	EPA 1668 A	4-CHLOROBIPHENYL (BZ-3)	PA
EPA 1668 A	DECACHLOROBIPHENYL (BZ-209)	PA	EPA 3050 B	PREP: ACID DIGESTION OF SEDIMENTS, SLUDGES, AND SOILS	PA
EPA 3540 C	PREP: SOXHLET EXTRACTION	PA	EPA 3546	PREP: MICROWAVE EXTRACTION	PA
EPA 3550 B	PREP: ULTRASONIC EXTRACTION	PA	EPA 3620 B	PREP: FLORISIL CLEANUP	PA
EPA 3630 C	PREP: SILICA GEL CLEANUP	PA	EPA 3640 A	PREP: GEL PERMEATION CLEANUP	PA
EPA 3660 B	PREP: SULFUR CLEANUP	PA	EPA 3665 A	SULFURIC ACID/PERMANGANATE CLEAN-UP	PA
EPA 5030 B	PREP: PURGE AND TRAP FOR AQUEOUS SAMPLES	PA	EPA 5035	PREP: CLOSED-SYSTEM PURGE AND TRAP AND EXTRACTION	PA
EPA 6010 B	ALUMINUM	PA	EPA 6010 B	ANTIMONY	PA
EPA 6010 B	ARSENIC	PA	EPA 6010 B	BARIUM	PA
EPA 6010 B	BERYLLIUM	PA	EPA 6010 B	BORON	PA
EPA 6010 B	CADMIUM	PA	EPA 6010 B	CALCIUM	PA
EPA 6010 B	CHROMIUM	PA	EPA 6010 B	COBALT	PA
EPA 6010 B	COPPER	PA	EPA 6010 B	IRON	PA
EPA 6010 B	LEAD	PA	EPA 6010 B	MAGNESIUM	PA
EPA 6010 B	MANGANESE	PA	EPA 6010 B	MOLYBDENUM	PA
EPA 6010 B	NICKEL	PA	EPA 6010 B	POTASSIUM	PA
EPA 6010 B	SELENIUM	PA	EPA 6010 B	SILVER	PA
EPA 6010 B	SODIUM	PA	EPA 6010 B	STRONTIUM	PA
EPA 6010 B	THALLIUM	PA	EPA 6010 B	TIN	PA
EPA 6010 B	TITANIUM	PA	EPA 6010 B	VANADIUM	PA
EPA 6010 B	ZINC	PA	EPA 6010 C	ALUMINUM	PA
EPA 6010 C	ANTIMONY	PA	EPA 6010 C	ARSENIC	PA
EPA 6010 C	BARIUM	PA	EPA 6010 C	BERYLLIUM	PA

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

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METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 6010 C	BORON	PA	EPA 6010 C	CADMIUM	PA
EPA 6010 C	CALCIUM	PA	EPA 6010 C	CHROMIUM	PA
EPA 6010 C	COBALT	PA	EPA 6010 C	COPPER	PA
EPA 6010 C	IRON	PA	EPA 6010 C	LEAD	PA
EPA 6010 C	MAGNESIUM	PA	EPA 6010 C	MANGANESE	PA
EPA 6010 C	MOLYBDENUM	PA	EPA 6010 C	NICKEL	PA
EPA 6010 C	POTASSIUM	PA	EPA 6010 C	SELENIUM	PA
EPA 6010 C	SILVER	PA	EPA 6010 C	SODIUM	PA
EPA 6010 C	STRONTIUM	PA	EPA 6010 C	THALLIUM	PA
EPA 6010 C	TIN	PA	EPA 6010 C	TITANIUM	PA
EPA 6010 C	VANADIUM	PA	EPA 6010 C	ZINC	PA
EPA 6020 A	ALUMINUM	PA	EPA 6020 A	ANTIMONY	PA
EPA 6020 A	ARSENIC	PA	EPA 6020 A	BERYLLIUM	PA
EPA 6020 A	CADMIUM	PA	EPA 6020 A	CALCIUM	PA
EPA 6020 A	CHROMIUM	PA	EPA 6020 A	COBALT	PA
EPA 6020 A	COPPER	PA	EPA 6020 A	IRON	PA
EPA 6020 A	LEAD	PA	EPA 6020 A	MAGNESIUM	PA
EPA 6020 A	MANGANESE	PA	EPA 6020 A	NICKEL	PA
EPA 6020 A	POTASSIUM	PA	EPA 6020 A	SELENIUM	PA
EPA 6020 A	SILVER	PA	EPA 6020 A	SODIUM	PA
EPA 6020 A	THALLIUM	PA	EPA 6020 A	VANADIUM	PA
EPA 6020 A	ZINC	PA	EPA 6020 A - EXTENDED	BORON	PA
EPA 6020 A - EXTENDED	STRONTIUM	PA	EPA 6020 A - EXTENDED	TIN	PA
EPA 6020 A - EXTENDED	TITANIUM	PA	EPA 6850	PERCHLORATE	PA
EPA 7196 A	CHROMIUM VI	PA	EPA 7471 A	MERCURY	PA
EPA 7471 B	MERCURY	PA	EPA 8015 B	DIESEL RANGE ORGANICS (DRO)	PA
EPA 8015 B	ETHANOL	PA	EPA 8015 B	ETHYLENE GLYCOL	PA
EPA 8015 B	GASOLINE RANGE ORGANICS (GRO)	PA	EPA 8015 B	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	PA
EPA 8015 B	METHANOL	PA	EPA 8015 C	ETHANOL	PA
EPA 8015 C	ETHYLENE GLYCOL	PA	EPA 8015 C	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	PA
EPA 8015 C	METHANOL	PA	EPA 8021 B	BENZENE	PA
EPA 8021 B	ETHYLBENZENE	PA	EPA 8021 B	ISOPROPYLBENZENE	PA
EPA 8021 B	M+P-XYLENE	PA	EPA 8021 B	NAPHTHALENE	PA
EPA 8021 B	O-XYLENE	PA	EPA 8021 B	TOLUENE	PA
EPA 8021 B	XYLENE (TOTAL)	PA	EPA 8021 B - EXTENDED	METHYL TERT-BUTYL ETHER (MTBE)	PA
EPA 8081 A	4,4'-DDD	PA	EPA 8081 A	4,4'-DDE	PA
EPA 8081 A	4,4'-DDT	PA	EPA 8081 A	ALDRIN	PA

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EPA 8081 A	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	PA	EPA 8081 A	ALPHA-CHLORDANE [CIS-CHLORDANE]	PA
EPA 8081 A	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	PA	EPA 8081 A	CHLORDANE (TECH.)	PA
EPA 8081 A	DELTA-BHC	PA	EPA 8081 A	DIELDRIN	PA
EPA 8081 A	ENDOSULFAN I	PA	EPA 8081 A	ENDOSULFAN II	PA
EPA 8081 A	ENDOSULFAN SULFATE	PA	EPA 8081 A	ENDRIN	PA
EPA 8081 A	ENDRIN ALDEHYDE	PA	EPA 8081 A	ENDRIN KETONE	PA
EPA 8081 A	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	PA	EPA 8081 A	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	PA
EPA 8081 A	HEPTACHLOR	PA	EPA 8081 A	HEPTACHLOR EPOXIDE	PA
EPA 8081 A	METHOXYCHLOR	PA	EPA 8081 A	TOXAPHENE (CHLORINATED CAMPHENE)	PA
EPA 8081 B	4,4'-DDD	PA	EPA 8081 B	4,4'-DDE	PA
EPA 8081 B	4,4'-DDT	PA	EPA 8081 B	ALDRIN	PA
EPA 8081 B	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	PA	EPA 8081 B	ALPHA-CHLORDANE [CIS-CHLORDANE]	PA
EPA 8081 B	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	PA	EPA 8081 B	CHLORDANE (TECH.)	PA
EPA 8081 B	DELTA-BHC	PA	EPA 8081 B	DIELDRIN	PA
EPA 8081 B	ENDOSULFAN I	PA	EPA 8081 B	ENDOSULFAN II	PA
EPA 8081 B	ENDOSULFAN SULFATE	PA	EPA 8081 B	ENDRIN	PA
EPA 8081 B	ENDRIN ALDEHYDE	PA	EPA 8081 B	ENDRIN KETONE	PA
EPA 8081 B	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	PA	EPA 8081 B	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	PA
EPA 8081 B	HEPTACHLOR	PA	EPA 8081 B	HEPTACHLOR EPOXIDE	PA
EPA 8081 B	METHOXYCHLOR	PA	EPA 8081 B	TOXAPHENE (CHLORINATED CAMPHENE)	PA
EPA 8081 B - EXTENDED	KEPONE	PA	EPA 8081 B - EXTENDED	MIREX	PA
EPA 8082 - OIL A	AROCLOR-1016 (PCB-1016)	PA	EPA 8082 - OIL A	AROCLOR-1221 (PCB-1221)	PA
EPA 8082 - OIL A	AROCLOR-1232 (PCB-1232)	PA	EPA 8082 - OIL A	AROCLOR-1242 (PCB-1242)	PA
EPA 8082 - OIL A	AROCLOR-1248 (PCB-1248)	PA	EPA 8082 - OIL A	AROCLOR-1254 (PCB-1254)	PA
EPA 8082 - OIL A	AROCLOR-1260 (PCB-1260)	PA	EPA 8082 A	AROCLOR-1016 (PCB-1016)	PA
EPA 8082 A	AROCLOR-1221 (PCB-1221)	PA	EPA 8082 A	AROCLOR-1232 (PCB-1232)	PA
EPA 8082 A	AROCLOR-1242 (PCB-1242)	PA	EPA 8082 A	AROCLOR-1248 (PCB-1248)	PA
EPA 8082 A	AROCLOR-1254 (PCB-1254)	PA	EPA 8082 A	AROCLOR-1260 (PCB-1260)	PA
EPA 8082 A - EXTENDED	AROCLOR-1262 (PCB-1262)	PA	EPA 8082 A - EXTENDED	AROCLOR-1268 (PCB-1268)	PA
EPA 8141 A	ATRAZINE	PA	EPA 8141 A	BOLSTAR (SULPROFOS)	PA

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EPA 8141 A	CHLORPYRIFOS	PA	EPA 8141 A	COUMAPHOS	PA
EPA 8141 A	DEMETON-O	PA	EPA 8141 A	DEMETON-S	PA
EPA 8141 A	DIAZINON	PA	EPA 8141 A	DICHLOROVOS (DDVP, DICHLORVOS)	PA
EPA 8141 A	DISULFOTON	PA	EPA 8141 A	EPN (PHOSPHONOTHIOIC ACID, PHENYL-, O-ETHYL O-(P-NITROPHENYL) ESTER)	PA
EPA 8141 A	ETHION	PA	EPA 8141 A	ETHOPROP	PA
EPA 8141 A	FAMPHUR	PA	EPA 8141 A	FENSULFOTHION	PA
EPA 8141 A	FENTHION	PA	EPA 8141 A	MALATHION	PA
EPA 8141 A	MERPHOS	PA	EPA 8141 A	METHYL PARATHION (PARATHION, METHYL)	PA
EPA 8141 A	MEVINPHOS	PA	EPA 8141 A	NALED	PA
EPA 8141 A	PARATHION (PARATHION - ETHYL)	PA	EPA 8141 A	PHORATE	PA
EPA 8141 A	RONNEL	PA	EPA 8141 A	SIMAZINE	PA
EPA 8141 A	TETRACHLORVINPHOS (STIROPHOS, GARDONA) Z-ISOMER	PA	EPA 8141 A	TOKUTHION (PROTHIOPHOS)	PA
EPA 8141 A	TRICHLORONATE	PA	EPA 8141 B	ATRAZINE	PA
EPA 8141 B	BOLSTAR (SULPROFOS)	PA	EPA 8141 B	COUMAPHOS	PA
EPA 8141 B	DEMETON-O	PA	EPA 8141 B	DEMETON-S	PA
EPA 8141 B	DIAZINON	PA	EPA 8141 B	DICHLOROVOS (DDVP, DICHLORVOS)	PA
EPA 8141 B	DISULFOTON	PA	EPA 8141 B	EPN (PHOSPHONOTHIOIC ACID, PHENYL-, O-ETHYL O-(P-NITROPHENYL) ESTER)	PA
EPA 8141 B	ETHION	PA	EPA 8141 B	ETHOPROP	PA
EPA 8141 B	FAMPHUR	PA	EPA 8141 B	FENSULFOTHION	PA
EPA 8141 B	FENTHION	PA	EPA 8141 B	MALATHION	PA
EPA 8141 B	MERPHOS	PA	EPA 8141 B	METHYL PARATHION (PARATHION, METHYL)	PA
EPA 8141 B	MEVINPHOS	PA	EPA 8141 B	NALED	PA
EPA 8141 B	PARATHION (PARATHION - ETHYL)	PA	EPA 8141 B	PHORATE	PA
EPA 8141 B	RONNEL	PA	EPA 8141 B	SIMAZINE	PA
EPA 8141 B	TETRACHLORVINPHOS (STIROPHOS, GARDONA) Z-ISOMER	PA	EPA 8141 B	TOKUTHION (PROTHIOPHOS)	PA
EPA 8141 B	TRICHLORONATE	PA	EPA 8151 A	2,4,5-T	PA
EPA 8151 A	2,4-D	PA	EPA 8151 A	2,4-DB	PA
EPA 8151 A	DALAPON	PA	EPA 8151 A	DICAMBA	PA
EPA 8151 A	DICHLOROPROP (DICHLORPROP)	PA	EPA 8151 A	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	PA
EPA 8151 A	MCPA	PA	EPA 8151 A	MCPP	PA
EPA 8151 A	PENTACHLOROPHENOL	PA	EPA 8151 A	PICLORAM	PA
EPA 8151 A	SILVEX (2,4,5-TP)	PA	EPA 8260 B	1,1,1,2-TETRACHLOROETHANE	PA

Commonwealth of Virginia

Department of General Services
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Scope of Accreditation

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Virginia Laboratory ID: 460182
Effective Date: June 15, 2015
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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8260 B	1,1,1-TRICHLOROETHANE	PA	EPA 8260 B	1,1,2,2-TETRACHLOROETHANE	PA
EPA 8260 B	1,1,2-TRICHLOROETHANE	PA	EPA 8260 B	1,1-DICHLOROETHANE	PA
EPA 8260 B	1,1-DICHLOROETHYLENE	PA	EPA 8260 B	1,1-DICHLOROPROPENE	PA
EPA 8260 B	1,2,3-TRICHLOROBENZENE	PA	EPA 8260 B	1,2,3-TRICHLOROPROPANE	PA
EPA 8260 B	1,2,4-TRICHLOROBENZENE	PA	EPA 8260 B	1,2,4-TRIMETHYLBENZENE	PA
EPA 8260 B	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	PA	EPA 8260 B	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	PA
EPA 8260 B	1,2-DICHLOROBENZENE	PA	EPA 8260 B	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	PA
EPA 8260 B	1,2-DICHLOROPROPANE	PA	EPA 8260 B	1,3,5-TRIMETHYLBENZENE	PA
EPA 8260 B	1,3-DICHLOROBENZENE	PA	EPA 8260 B	1,3-DICHLOROPROPANE	PA
EPA 8260 B	1,4-DICHLOROBENZENE	PA	EPA 8260 B	1,4-DIOXANE (1,4-DIETHYLENEOXIDE)	PA
EPA 8260 B	1-BUTANOL (N-BUTANOL)	PA	EPA 8260 B	2,2-DICHLOROPROPANE	PA
EPA 8260 B	2-BUTANONE (METHYL ETHYL KETONE, MEK)	PA	EPA 8260 B	2-CHLOROETHYL VINYL ETHER	PA
EPA 8260 B	2-CHLOROTOLUENE	PA	EPA 8260 B	2-HEXANONE	PA
EPA 8260 B	4-CHLOROTOLUENE	PA	EPA 8260 B	4-ISOPROPYLTOLUENE (P-CYMENE)	PA
EPA 8260 B	4-METHYL-2-PENTANONE (MIBK)	PA	EPA 8260 B	ACETONE	PA
EPA 8260 B	ACETONITRILE	PA	EPA 8260 B	ACROLEIN (PROPENAL)	PA
EPA 8260 B	ACRYLONITRILE	PA	EPA 8260 B	ALLYL CHLORIDE (3-CHLOROPROPENE)	PA
EPA 8260 B	BENZENE	PA	EPA 8260 B	BENZYL CHLORIDE	PA
EPA 8260 B	BROMOBENZENE	PA	EPA 8260 B	BROMOCHLOROMETHANE	PA
EPA 8260 B	BROMODICHLOROMETHANE	PA	EPA 8260 B	BROMOFORM	PA
EPA 8260 B	CARBON DISULFIDE	PA	EPA 8260 B	CARBON TETRACHLORIDE	PA
EPA 8260 B	CHLOROBENZENE	PA	EPA 8260 B	CHLORODIBROMOMETHANE	PA
EPA 8260 B	CHLOROETHANE (ETHYL CHLORIDE)	PA	EPA 8260 B	CHLOROFORM	PA
EPA 8260 B	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	PA	EPA 8260 B	CIS-1,2-DICHLOROETHYLENE	PA
EPA 8260 B	CIS-1,3-DICHLOROPROPENE	PA	EPA 8260 B	DIBROMOMETHANE (METHYLENE BROMIDE)	PA
EPA 8260 B	DICHLORODIFLUOROMETHANE (FREON-12)	PA	EPA 8260 B	EPICHLOROHYDRIN (1-CHLORO-2,3-EPOXYPROPANE)	PA
EPA 8260 B	ETHANOL	PA	EPA 8260 B	ETHYL ACETATE	PA
EPA 8260 B	ETHYL METHACRYLATE	PA	EPA 8260 B	ETHYLBENZENE	PA
EPA 8260 B	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	PA	EPA 8260 B	IODOMETHANE (METHYL IODIDE)	PA
EPA 8260 B	ISOBUTYL ALCOHOL (2-METHYL-1-PROPANOL)	PA	EPA 8260 B	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	PA
EPA 8260 B	ISOPROPYLBENZENE	PA	EPA 8260 B	M+P-XYLENE	PA
EPA 8260 B	METHACRYLONITRILE	PA	EPA 8260 B	METHYL BROMIDE (BROMOMETHANE)	PA

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8260 B	METHYL CHLORIDE (CHLOROMETHANE)	PA	EPA 8260 B	METHYL METHACRYLATE	PA
EPA 8260 B	METHYL TERT-BUTYL ETHER (MTBE)	PA	EPA 8260 B	METHYLENE CHLORIDE (DICHLOROMETHANE)	PA
EPA 8260 B	N-BUTYLBENZENE	PA	EPA 8260 B	N-PROPYLBENZENE	PA
EPA 8260 B	NAPHTHALENE	PA	EPA 8260 B	O-XYLENE	PA
EPA 8260 B	PENTACHLOROETHANE	PA	EPA 8260 B	PROPIONITRILE (ETHYL CYANIDE)	PA
EPA 8260 B	SEC-BUTYLBENZENE	PA	EPA 8260 B	STYRENE	PA
EPA 8260 B	TERT-BUTYL ALCOHOL	PA	EPA 8260 B	TERT-BUTYLBENZENE	PA
EPA 8260 B	TETRACHLOROETHENE (PERCHLOROETHENE)	PA	EPA 8260 B	TOLUENE	PA
EPA 8260 B	TRANS-1,2-DICHLOROETHENE	PA	EPA 8260 B	TRANS-1,3-DICHLOROPROPENE	PA
EPA 8260 B	TRANS-1,4-DICHLORO-2-BUTENE	PA	EPA 8260 B	TRICHLOROETHENE (TRICHLOROETHYLENE)	PA
EPA 8260 B	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	PA	EPA 8260 B	VINYL ACETATE	PA
EPA 8260 B	VINYL CHLORIDE	PA	EPA 8260 B	XYLENE (TOTAL)	PA
EPA 8260 B - EXTENDED	1,1,2-TRICHLORO-1,2,2-TRIFLUORO ETHANE (FREON 113)	PA	EPA 8260 B - EXTENDED	CYCLOHEXANE	PA
EPA 8260 B - EXTENDED	CYCLOHEXANONE	PA	EPA 8260 B - EXTENDED	DIISOPROPYLETHER (DIPE, ISOPROPYL ETHER)	PA
EPA 8260 B - EXTENDED	ETHYL-T-BUTYLETHER (2-ETHOXY-2-METHYLPROPANE, ETBE)	PA	EPA 8260 B - EXTENDED	GASOLINE RANGE ORGANICS (GRO)	PA
EPA 8260 B - EXTENDED	METHYL ACETATE	PA	EPA 8260 B - EXTENDED	METHYLCYCLOHEXANE	PA
EPA 8260 B - EXTENDED	T-AMYL ALCOHOL (TAA)	PA	EPA 8260 B - EXTENDED	T-AMYLMETHYLETHER (TAME)	PA
EPA 8260 B - EXTENDED	TETRAHYDROFURAN (THF)	PA	EPA 8260 C	1,1,1,2-TETRACHLOROETHANE	PA
EPA 8260 C	1,1,1-TRICHLOROETHANE	PA	EPA 8260 C	1,1,2,2-TETRACHLOROETHANE	PA
EPA 8260 C	1,1,2-TRICHLOROETHANE	PA	EPA 8260 C	1,1-DICHLOROETHANE	PA
EPA 8260 C	1,1-DICHLOROETHYLENE	PA	EPA 8260 C	1,1-DICHLOROPROPENE	PA
EPA 8260 C	1,2,3-TRICHLOROBENZENE	PA	EPA 8260 C	1,2,3-TRICHLOROPROPANE	PA
EPA 8260 C	1,2,4-TRICHLOROBENZENE	PA	EPA 8260 C	1,2,4-TRIMETHYLBENZENE	PA
EPA 8260 C	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	PA	EPA 8260 C	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	PA
EPA 8260 C	1,2-DICHLOROBENZENE	PA	EPA 8260 C	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	PA
EPA 8260 C	1,2-DICHLOROPROPANE	PA	EPA 8260 C	1,3,5-TRIMETHYLBENZENE	PA
EPA 8260 C	1,3-DICHLOROBENZENE	PA	EPA 8260 C	1,3-DICHLOROPROPANE	PA
EPA 8260 C	1,4-DICHLOROBENZENE	PA	EPA 8260 C	1,4-DIOXANE (1,4-DIETHYLENEOXIDE)	PA
EPA 8260 C	2,2-DICHLOROPROPANE	PA	EPA 8260 C	2-BUTANONE (METHYL ETHYL KETONE, MEK)	PA
EPA 8260 C	2-CHLOROETHYL VINYL ETHER	PA	EPA 8260 C	2-CHLOROTOLUENE	PA
EPA 8260 C	2-HEXANONE	PA	EPA 8260 C	4-CHLOROTOLUENE	PA

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8260 C	4-ISOPROPYLTOLUENE (P-CYMENE)	PA	EPA 8260 C	4-METHYL-2-PENTANONE (MIBK)	PA
EPA 8260 C	ACETONE	PA	EPA 8260 C	ACETONITRILE	PA
EPA 8260 C	ACROLEIN (PROPENAL)	PA	EPA 8260 C	ACRYLONITRILE	PA
EPA 8260 C	ALLYL CHLORIDE (3-CHLOROPROPENE)	PA	EPA 8260 C	BENZENE	PA
EPA 8260 C	BENZYL CHLORIDE	PA	EPA 8260 C	BROMOBENZENE	PA
EPA 8260 C	BROMOCHLOROMETHANE	PA	EPA 8260 C	BROMODICHLOROMETHANE	PA
EPA 8260 C	BROMOFORM	PA	EPA 8260 C	CARBON DISULFIDE	PA
EPA 8260 C	CARBON TETRACHLORIDE	PA	EPA 8260 C	CHLOROBENZENE	PA
EPA 8260 C	CHLORODIBROMOMETHANE	PA	EPA 8260 C	CHLOROETHANE (ETHYL CHLORIDE)	PA
EPA 8260 C	CHLOROFORM	PA	EPA 8260 C	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	PA
EPA 8260 C	CIS-1,2-DICHLOROETHYLENE	PA	EPA 8260 C	CIS-1,3-DICHLOROPROPENE	PA
EPA 8260 C	CYCLOHEXANE	PA	EPA 8260 C	DIBROMOMETHANE (METHYLENE BROMIDE)	PA
EPA 8260 C	DICHLORODIFLUOROMETHANE (FREON-12)	PA	EPA 8260 C	EPICHLOROHYDRIN (1-CHLORO-2,3-EPOXYPROPANE)	PA
EPA 8260 C	ETHANOL	PA	EPA 8260 C	ETHYL ACETATE	PA
EPA 8260 C	ETHYL METHACRYLATE	PA	EPA 8260 C	ETHYL-T-BUTYLETHER (2-ETHOXY-2-METHYLPROPANE, ETBE)	PA
EPA 8260 C	ETHYLBENZENE	PA	EPA 8260 C	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	PA
EPA 8260 C	IODOMETHANE (METHYL IODIDE)	PA	EPA 8260 C	ISOBUTYL ALCOHOL (2-METHYL-1-PROPANOL)	PA
EPA 8260 C	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	PA	EPA 8260 C	ISOPROPYLBENZENE	PA
EPA 8260 C	METHACRYLONITRILE	PA	EPA 8260 C	METHYL BROMIDE (BROMOMETHANE)	PA
EPA 8260 C	METHYL CHLORIDE (CHLOROMETHANE)	PA	EPA 8260 C	METHYL METHACRYLATE	PA
EPA 8260 C	METHYL TERT-BUTYL ETHER (MTBE)	PA	EPA 8260 C	METHYLCYCLOHEXANE	PA
EPA 8260 C	METHYLENE CHLORIDE (DICHLOROMETHANE)	PA	EPA 8260 C	N-BUTYLBENZENE	PA
EPA 8260 C	N-PROPYLBENZENE	PA	EPA 8260 C	NAPHTHALENE	PA
EPA 8260 C	PENTACHLOROETHANE	PA	EPA 8260 C	PROPIONITRILE (ETHYL CYANIDE)	PA
EPA 8260 C	SEC-BUTYLBENZENE	PA	EPA 8260 C	STYRENE	PA
EPA 8260 C	T-AMYLMETHYLETHER (TAME)	PA	EPA 8260 C	TERT-BUTYL ALCOHOL	PA
EPA 8260 C	TETRACHLOROETHENE (PERCHLOROETHENE)	PA	EPA 8260 C	TOLUENE	PA
EPA 8260 C	TRANS-1,2-DICHLOROETHENE	PA	EPA 8260 C	TRANS-1,3-DICHLOROPROPENE	PA
EPA 8260 C	TRANS-1,4-DICHLORO-2-BUTENE	PA	EPA 8260 C	TRICHLOROETHENE (TRICHLOROETHYLENE)	PA

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EPA 8260 C	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	PA	EPA 8260 C	VINYL ACETATE	PA
EPA 8260 C	VINYL CHLORIDE	PA	EPA 8260 C	XYLENE (TOTAL)	PA
EPA 8260 C - EXTENDED	1,1,2-TRICHLORO-1,2,2-TRIFLUORO ETHANE (FREON 113)	PA	EPA 8260 C - EXTENDED	DIISOPROPYLETHER (DIPE, ISOPROPYL ETHER)	PA
EPA 8260 C - EXTENDED	GASOLINE RANGE ORGANICS (GRO)	PA	EPA 8260 C - EXTENDED	METHYL ACETATE	PA
EPA 8260 C - EXTENDED	T-AMYL ALCOHOL (TAA)	PA	EPA 8260 C - EXTENDED	TETRAHYDROFURAN (THF)	PA
EPA 8270 C	1,2,4,5-TETRACHLOROBENZENE	PA	EPA 8270 C	1,2,4-TRICHLOROBENZENE	PA
EPA 8270 C	1,2-DICHLOROBENZENE	PA	EPA 8270 C	1,2-DINITROBENZENE	PA
EPA 8270 C	1,2-DIPHENYLHYDRAZINE	PA	EPA 8270 C	1,3,5-TRINITROBENZENE (1,3,5-TNB)	PA
EPA 8270 C	1,3-DICHLOROBENZENE	PA	EPA 8270 C	1,3-DINITROBENZENE (1,3-DNB)	PA
EPA 8270 C	1,4-DICHLOROBENZENE	PA	EPA 8270 C	1,4-DINITROBENZENE	PA
EPA 8270 C	1,4-NAPHTHOQUINONE	PA	EPA 8270 C	1,4-PHENYLENEDIAMINE	PA
EPA 8270 C	1-CHLORONAPHTHALENE	PA	EPA 8270 C	1-NAPHTHYLAMINE	PA
EPA 8270 C	2,3,4,6-TETRACHLOROPHENOL	PA	EPA 8270 C	2,4,5-TRICHLOROPHENOL	PA
EPA 8270 C	2,4,6-TRICHLOROPHENOL	PA	EPA 8270 C	2,4-DICHLOROPHENOL	PA
EPA 8270 C	2,4-DIMETHYLPHENOL	PA	EPA 8270 C	2,4-DINITROPHENOL	PA
EPA 8270 C	2,4-DINITROTOLUENE (2,4-DNT)	PA	EPA 8270 C	2,6-DICHLOROPHENOL	PA
EPA 8270 C	2,6-DINITROTOLUENE (2,6-DNT)	PA	EPA 8270 C	2-ACETYLAMINOFLUORENE	PA
EPA 8270 C	2-CHLORONAPHTHALENE	PA	EPA 8270 C	2-CHLOROPHENOL	PA
EPA 8270 C	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	PA	EPA 8270 C	2-METHYLNAPHTHALENE	PA
EPA 8270 C	2-METHYLPHENOL (O-CRESOL)	PA	EPA 8270 C	2-NAPHTHYLAMINE	PA
EPA 8270 C	2-NITROANILINE	PA	EPA 8270 C	2-NITROPHENOL	PA
EPA 8270 C	2-PICOLINE (2-METHYLPYRIDINE)	PA	EPA 8270 C	3,3'-DICHLOROBENZIDINE	PA
EPA 8270 C	3,3'-DIMETHOXYBENZIDINE	PA	EPA 8270 C	3,3'-DIMETHYLBENZIDINE	PA
EPA 8270 C	3-METHYLCHOLANTHRENE	PA	EPA 8270 C	3-METHYLPHENOL (M-CRESOL)	PA
EPA 8270 C	3-NITROANILINE	PA	EPA 8270 C	4,4'-METHYLENEBIS(2-CHLOROANILINE)	PA
EPA 8270 C	4-AMINOBIPHENYL	PA	EPA 8270 C	4-BROMOPHENYL PHENYL ETHER	PA
EPA 8270 C	4-CHLORO-3-METHYLPHENOL	PA	EPA 8270 C	4-CHLOROANILINE	PA
EPA 8270 C	4-CHLOROPHENYL PHENYLETHER	PA	EPA 8270 C	4-DIMETHYL AMINOAZOBENZENE	PA
EPA 8270 C	4-METHYLPHENOL (P-CRESOL)	PA	EPA 8270 C	4-NITROANILINE	PA
EPA 8270 C	4-NITROPHENOL	PA	EPA 8270 C	4-NITROQUINOLINE-1-OXIDE	PA
EPA 8270 C	5-NITRO-O-TOLUIDINE	PA	EPA 8270 C	7,12-DIMETHYLBENZ(A) ANTHRACENE	PA
EPA 8270 C	A-A-DIMETHYLPHENETHYLAMINE	PA	EPA 8270 C	ACENAPHTHENE	PA
EPA 8270 C	ACENAPHTHYLENE	PA	EPA 8270 C	ACETOPHENONE	PA
EPA 8270 C	ANILINE	PA	EPA 8270 C	ANTHRACENE	PA

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8270 C	ARAMITE	PA	EPA 8270 C	BENZIDINE	PA
EPA 8270 C	BENZO(A)ANTHRACENE	PA	EPA 8270 C	BENZO(A)PYRENE	PA
EPA 8270 C	BENZO(B)FLUORANTHENE	PA	EPA 8270 C	BENZO(G,H,I)PERYLENE	PA
EPA 8270 C	BENZO(K)FLUORANTHENE	PA	EPA 8270 C	BENZOIC ACID	PA
EPA 8270 C	BENZYL ALCOHOL	PA	EPA 8270 C	BIS(2-CHLOROETHOXY)METHANE	PA
EPA 8270 C	BIS(2-CHLOROETHYL) ETHER	PA	EPA 8270 C	BIS(2-CHLOROISOPROPYL) ETHER	PA
EPA 8270 C	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	PA	EPA 8270 C	BUTYL BENZYL PHTHALATE	PA
EPA 8270 C	CHLOROBENZILATE	PA	EPA 8270 C	CHRYSENE	PA
EPA 8270 C	DI-N-BUTYL PHTHALATE	PA	EPA 8270 C	DI-N-OCTYL PHTHALATE	PA
EPA 8270 C	DIALLATE	PA	EPA 8270 C	DIBENZ(A, J) ACRIDINE	PA
EPA 8270 C	DIBENZO(A,H) ANTHRACENE	PA	EPA 8270 C	DIBENZOFURAN	PA
EPA 8270 C	DIETHYL PHTHALATE	PA	EPA 8270 C	DIMETHOATE	PA
EPA 8270 C	DIMETHYL PHTHALATE	PA	EPA 8270 C	DIPHENYLAMINE	PA
EPA 8270 C	DISULFOTON	PA	EPA 8270 C	ETHYL METHANESULFONATE	PA
EPA 8270 C	FAMPHUR	PA	EPA 8270 C	FLUORANTHENE	PA
EPA 8270 C	FLUORENE	PA	EPA 8270 C	HEXACHLOROBENZENE	PA
EPA 8270 C	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	PA	EPA 8270 C	HEXACHLOROCYCLOPENTADIENE	PA
EPA 8270 C	HEXACHLOROETHANE	PA	EPA 8270 C	HEXACHLOROPROPENE	PA
EPA 8270 C	INDENO(1,2,3-CD) PYRENE	PA	EPA 8270 C	ISODRIN	PA
EPA 8270 C	ISOPHORONE	PA	EPA 8270 C	ISOSAFROLE	PA
EPA 8270 C	KEPONE	PA	EPA 8270 C	METHAPYRILENE	PA
EPA 8270 C	METHYL METHANESULFONATE	PA	EPA 8270 C	METHYL PARATHION (PARATHION, METHYL)	PA
EPA 8270 C	N-NITROSO-DI-N-BUTYLAMINE	PA	EPA 8270 C	N-NITROSODI-N-PROPYLAMINE	PA
EPA 8270 C	N-NITROSODIETHYLAMINE	PA	EPA 8270 C	N-NITROSODIMETHYLAMINE	PA
EPA 8270 C	N-NITROSODIPHENYLAMINE	PA	EPA 8270 C	N-NITROSOMETHYLETHYLAMINE	PA
EPA 8270 C	N-NITROSOMORPHOLINE	PA	EPA 8270 C	N-NITROSOPIPERIDINE	PA
EPA 8270 C	N-NITROSOPYRROLIDINE	PA	EPA 8270 C	NAPHTHALENE	PA
EPA 8270 C	NITROBENZENE	PA	EPA 8270 C	O,O,O-TRIETHYL PHOSPHOROTHIOATE	PA
EPA 8270 C	O-TOLUIDINE (2-METHYLANILINE)	PA	EPA 8270 C	PARATHION (PARATHION - ETHYL)	PA
EPA 8270 C	PENTACHLOROBENZENE	PA	EPA 8270 C	PENTACHLORONITROBENZENE	PA
EPA 8270 C	PENTACHLOROPHENOL	PA	EPA 8270 C	PHENACETIN	PA
EPA 8270 C	PHENANTHRENE	PA	EPA 8270 C	PHENOL	PA
EPA 8270 C	PHORATE	PA	EPA 8270 C	PHTHALIC ANHYDRIDE	PA
EPA 8270 C	PRONAMIDE (KERB)	PA	EPA 8270 C	PYRENE	PA
EPA 8270 C	PYRIDINE	PA	EPA 8270 C	SAFROLE	PA
EPA 8270 C	THIONAZIN (ZINOPHOS)	PA	EPA 8270 C	TRIS-(2,3-DIBROMOPROPYL) PHOSPHATE (TRIS-BP)	PA

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 7815

Eurofins Lancaster Laboratories Environmental, LLC
2425 New Holland Pike
Lancaster, PA 17601

Virginia Laboratory ID: 460182
Effective Date: June 15, 2015
Expiration Date: June 14, 2016

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
			EPA 8270 C SIM	2-METHYLNAPHTHALENE	PA
EPA 8270 C SIM	ACENAPHTHENE	PA	EPA 8270 C SIM	ACENAPHTHYLENE	PA
EPA 8270 C SIM	ANTHRACENE	PA	EPA 8270 C SIM	BENZO(A)ANTHRACENE	PA
EPA 8270 C SIM	BENZO(A)PYRENE	PA	EPA 8270 C SIM	BENZO(B)FLUORANTHENE	PA
EPA 8270 C SIM	BENZO(G,H,I)PERYLENE	PA	EPA 8270 C SIM	BENZO(K)FLUORANTHENE	PA
EPA 8270 C SIM	CHRYSENE	PA	EPA 8270 C SIM	DIBENZO(A,H) ANTHRACENE	PA
EPA 8270 C SIM	FLUORANTHENE	PA	EPA 8270 C SIM	FLUORENE	PA
EPA 8270 C SIM	INDENO(1,2,3-CD) PYRENE	PA	EPA 8270 C SIM	NAPHTHALENE	PA
EPA 8270 C SIM	PHENANTHRENE	PA	EPA 8270 C SIM	PYRENE	PA
EPA 8270 C SIM - EXTENDED	1-METHYLNAPHTHALENE	PA	EPA 8270 D	1,2,4,5-TETRACHLOROBENZENE	PA
EPA 8270 D	1,2,4-TRICHLOROBENZENE	PA	EPA 8270 D	1,2-DICHLOROBENZENE	PA
EPA 8270 D	1,2-DINITROBENZENE	PA	EPA 8270 D	1,2-DIPHENYLHYDRAZINE	PA
EPA 8270 D	1,3,5-TRINITROBENZENE (1,3,5-TNB)	PA	EPA 8270 D	1,3-DICHLOROBENZENE	PA
EPA 8270 D	1,3-DINITROBENZENE (1,3-DNB)	PA	EPA 8270 D	1,4-DICHLOROBENZENE	PA
EPA 8270 D	1,4-DINITROBENZENE	PA	EPA 8270 D	1,4-NAPHTHOQUINONE	PA
EPA 8270 D	1,4-PHENYLENEDIAMINE	PA	EPA 8270 D	1-CHLORONAPHTHALENE	PA
EPA 8270 D	1-NAPHTHYLAMINE	PA	EPA 8270 D	2,3,4,6-TETRACHLOROPHENOL	PA
EPA 8270 D	2,4,5-TRICHLOROPHENOL	PA	EPA 8270 D	2,4,6-TRICHLOROPHENOL	PA
EPA 8270 D	2,4-DICHLOROPHENOL	PA	EPA 8270 D	2,4-DIMETHYLPHENOL	PA
EPA 8270 D	2,4-DINITROPHENOL	PA	EPA 8270 D	2,4-DINITROTOLUENE (2,4-DNT)	PA
EPA 8270 D	2,6-DICHLOROPHENOL	PA	EPA 8270 D	2,6-DINITROTOLUENE (2,6-DNT)	PA
EPA 8270 D	2-ACETYLAMINOFLUORENE	PA	EPA 8270 D	2-CHLORONAPHTHALENE	PA
EPA 8270 D	2-CHLOROPHENOL	PA	EPA 8270 D	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	PA
EPA 8270 D	2-METHYLNAPHTHALENE	PA	EPA 8270 D	2-METHYLPHENOL (O-CRESOL)	PA
EPA 8270 D	2-NAPHTHYLAMINE	PA	EPA 8270 D	2-NITROANILINE	PA
EPA 8270 D	2-NITROPHENOL	PA	EPA 8270 D	2-PICOLINE (2-METHYLPYRIDINE)	PA
EPA 8270 D	3,3'-DICHLOROBENZIDINE	PA	EPA 8270 D	3,3'-DIMETHOXYBENZIDINE	PA
EPA 8270 D	3,3'-DIMETHYLBENZIDINE	PA	EPA 8270 D	3-METHYLCHOLANTHRENE	PA
EPA 8270 D	3-METHYLPHENOL (M-CRESOL)	PA	EPA 8270 D	3-NITROANILINE	PA
EPA 8270 D	4,4'-METHYLENEBIS(2-CHLOROANILINE)	PA	EPA 8270 D	4-AMINOBIPHENYL	PA
EPA 8270 D	4-BROMOPHENYL PHENYL ETHER	PA	EPA 8270 D	4-CHLORO-3-METHYLPHENOL	PA
EPA 8270 D	4-CHLOROANILINE	PA	EPA 8270 D	4-CHLOROPHENYL PHENYLETHER	PA
EPA 8270 D	4-DIMETHYL AMINOAZOBENZENE	PA	EPA 8270 D	4-METHYLPHENOL (P-CRESOL)	PA
EPA 8270 D	4-NITROANILINE	PA	EPA 8270 D	4-NITROPHENOL	PA
EPA 8270 D	4-NITROQUINOLINE-1-OXIDE	PA	EPA 8270 D	5-NITRO-O-TOLUIDINE	PA
EPA 8270 D	7,12-DIMETHYLBENZ(A) ANTHRACENE	PA	EPA 8270 D	A-A-DIMETHYLPHENETHYLAMINE	PA

Commonwealth of Virginia

Department of General Services
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Scope of Accreditation

VELAP Certificate No.: 7815

Eurofins Lancaster Laboratories Environmental, LLC
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Virginia Laboratory ID: 460182
Effective Date: June 15, 2015
Expiration Date: June 14, 2016

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8270 D	ACENAPHTHENE	PA	EPA 8270 D	ACENAPHTHYLENE	PA
EPA 8270 D	ACETOPHENONE	PA	EPA 8270 D	ANILINE	PA
EPA 8270 D	ANTHRACENE	PA	EPA 8270 D	ARAMITE	PA
EPA 8270 D	BENZIDINE	PA	EPA 8270 D	BENZO(A)ANTHRACENE	PA
EPA 8270 D	BENZO(A)PYRENE	PA	EPA 8270 D	BENZO(B)FLUORANTHENE	PA
EPA 8270 D	BENZO(G,H,I)PERYLENE	PA	EPA 8270 D	BENZO(K)FLUORANTHENE	PA
EPA 8270 D	BENZOIC ACID	PA	EPA 8270 D	BENZYL ALCOHOL	PA
EPA 8270 D	BIS(2-CHLOROETHOXY)METHANE	PA	EPA 8270 D	BIS(2-CHLOROETHYL) ETHER	PA
EPA 8270 D	BIS(2-CHLOROISOPROPYL) ETHER	PA	EPA 8270 D	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	PA
EPA 8270 D	BUTYL BENZYL PHTHALATE	PA	EPA 8270 D	CHLOROBENZILATE	PA
EPA 8270 D	CHRYSENE	PA	EPA 8270 D	DI-N-BUTYL PHTHALATE	PA
EPA 8270 D	DI-N-OCTYL PHTHALATE	PA	EPA 8270 D	DIALLATE	PA
EPA 8270 D	DIBENZ(A, J) ACRIDINE	PA	EPA 8270 D	DIBENZO(A,H) ANTHRACENE	PA
EPA 8270 D	DIBENZOFURAN	PA	EPA 8270 D	DIETHYL PHTHALATE	PA
EPA 8270 D	DIMETHOATE	PA	EPA 8270 D	DIMETHYL PHTHALATE	PA
EPA 8270 D	DIPHENYLAMINE	PA	EPA 8270 D	DISULFOTON	PA
EPA 8270 D	ETHYL METHANESULFONATE	PA	EPA 8270 D	FAMPHUR	PA
EPA 8270 D	FLUORANTHENE	PA	EPA 8270 D	FLUORENE	PA
EPA 8270 D	HEXACHLOROBENZENE	PA	EPA 8270 D	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	PA
EPA 8270 D	HEXACHLOROCYCLOPENTADIENE	PA	EPA 8270 D	HEXACHLOROETHANE	PA
EPA 8270 D	HEXACHLOROPROPENE	PA	EPA 8270 D	INDENO(1,2,3-CD) PYRENE	PA
EPA 8270 D	ISODRIN	PA	EPA 8270 D	ISOPHORONE	PA
EPA 8270 D	ISOSAFROLE	PA	EPA 8270 D	KEPONE	PA
EPA 8270 D	METHAPYRILENE	PA	EPA 8270 D	METHYL METHANESULFONATE	PA
EPA 8270 D	METHYL PARATHION (PARATHION, METHYL)	PA	EPA 8270 D	N-NITROSO-DI-N-BUTYLAMINE	PA
EPA 8270 D	N-NITROSODI-N-PROPYLAMINE	PA	EPA 8270 D	N-NITROSODIETHYLAMINE	PA
EPA 8270 D	N-NITROSODIMETHYLAMINE	PA	EPA 8270 D	N-NITROSODIPHENYLAMINE	PA
EPA 8270 D	N-NITROSOMETHYLETHYLAMINE	PA	EPA 8270 D	N-NITROSOMORPHOLINE	PA
EPA 8270 D	N-NITROSOPIPERIDINE	PA	EPA 8270 D	N-NITROSOPYRROLIDINE	PA
EPA 8270 D	NAPHTHALENE	PA	EPA 8270 D	NITROBENZENE	PA
EPA 8270 D	O,O,O-TRIETHYL PHOSPHOROTHIOATE	PA	EPA 8270 D	O-TOLUIDINE (2-METHYLANILINE)	PA
EPA 8270 D	PARATHION (PARATHION - ETHYL)	PA	EPA 8270 D	PENTACHLOROBENZENE	PA
EPA 8270 D	PENTACHLORONITROBENZENE	PA	EPA 8270 D	PENTACHLOROPHENOL	PA
EPA 8270 D	PHENACETIN	PA	EPA 8270 D	PHENANTHRENE	PA
EPA 8270 D	PHENOL	PA	EPA 8270 D	PHORATE	PA
EPA 8270 D	PHTHALIC ANHYDRIDE	PA	EPA 8270 D	PRONAMIDE (KERB)	PA

Scope of Accreditation

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Virginia Laboratory ID: 460182
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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8270 D	PYRENE	PA	EPA 8270 D	SAFROLE	PA
EPA 8270 D	THIONAZIN (ZINOPHOS)	PA	EPA 8270 D	TRIS-(2,3-DIBROMOPROPYL) PHOSPHATE (TRIS-BP)	PA
EPA 8270 D - EXTENDED	1,1'-BIPHENYL	PA	EPA 8270 D - EXTENDED	1-METHYLNAPHTHALENE	PA
EPA 8270 D - EXTENDED	ATRAZINE	PA	EPA 8270 D - EXTENDED	BENZALDEHYDE	PA
EPA 8270 D - EXTENDED	BIS(2-ETHYLHEXYL)ADIPATE (DI(2-ETHYLHEXYL)ADIPATE)	PA	EPA 8270 D - EXTENDED	CAPROLACTAM	PA
EPA 8270 D - EXTENDED	CARBAZOLE	PA	EPA 8270 D - EXTENDED	PYRIDINE	PA
EPA 8270 D SIM	2-METHYLNAPHTHALENE	PA	EPA 8270 D SIM	ACENAPHTHENE	PA
EPA 8270 D SIM	ACENAPHTHYLENE	PA	EPA 8270 D SIM	ANTHRACENE	PA
EPA 8270 D SIM	BENZO(A)ANTHRACENE	PA	EPA 8270 D SIM	BENZO(A)PYRENE	PA
EPA 8270 D SIM	BENZO(B)FLUORANTHENE	PA	EPA 8270 D SIM	BENZO(G,H,I)PERYLENE	PA
EPA 8270 D SIM	BENZO(K)FLUORANTHENE	PA	EPA 8270 D SIM	CHRYSENE	PA
EPA 8270 D SIM	DIBENZO(A,H) ANTHRACENE	PA	EPA 8270 D SIM	FLUORANTHENE	PA
EPA 8270 D SIM	FLUORENE	PA	EPA 8270 D SIM	INDENO(1,2,3-CD) PYRENE	PA
EPA 8270 D SIM	NAPHTHALENE	PA	EPA 8270 D SIM	PHENANTHRENE	PA
EPA 8270 D SIM	PYRENE	PA	EPA 8270 D SIM - EXTENDED	1-METHYLNAPHTHALENE	PA
EPA 8290 A	1,2,3,4,6,7,8,9-OCTACHLORODIBENZO-P-DIOXIN (OCDD)	PA	EPA 8290 A	1,2,3,4,6,7,8,9-OCTACHLORODIBENZOFURAN (OCDF)	PA
EPA 8290 A	1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN (1,2,3,4,6,7,8-HPCDD)	PA	EPA 8290 A	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN (1,2,3,4,6,7,8-HPCDF)	PA
EPA 8290 A	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN (1,2,3,4,7,8,9-HPCDF)	PA	EPA 8290 A	1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN (1,2,3,4,7,8-HXCDD)	PA
EPA 8290 A	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN (1,2,3,4,7,8-HXCDF)	PA	EPA 8290 A	1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN(1,2,3,6,7,8-HXCDD)	PA
EPA 8290 A	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN (1,2,3,6,7,8-HXCDF)	PA	EPA 8290 A	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN (1,2,3,7,8,9-HXCDD)	PA
EPA 8290 A	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN (1,2,3,7,8,9-HXCDF)	PA	EPA 8290 A	1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN (1,2,3,7,8-PECDD)	PA
EPA 8290 A	1,2,3,7,8-PENTACHLORODIBENZOFURAN (1,2,3,7,8-PECDF)	PA	EPA 8290 A	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN (2,3,4,6,7,8-HXCDF)	PA
EPA 8290 A	2,3,4,7,8-PENTACHLORODIBENZOFURAN	PA	EPA 8290 A	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (2,3,7,8-TCDD)	PA
EPA 8290 A	2,3,7,8-TETRACHLORODIBENZOFURAN (2,3,7,8-TCDF)	PA	EPA 8315 A	2,5-DIMETHYLBENZALDEHYDE	PA
EPA 8315 A	ACETALDEHYDE	PA	EPA 8315 A	BENZALDEHYDE	PA
EPA 8315 A	BUTYLALDEHYDE (BUTANAL)	PA	EPA 8315 A	CROTONALDEHYDE	PA
EPA 8315 A	FORMALDEHYDE	PA	EPA 8315 A	HEXANALDEHYDE (HEXANAL)	PA
EPA 8315 A	ISOVALERALDEHYDE	PA	EPA 8315 A	M-TOLUALDEHYDE (1,3-TOLUALDEHYDE)	PA
EPA 8315 A	O-TOLUALDEHYDE (1,2-TOLUALDEHYDE)	PA	EPA 8315 A	P-TOLUALDEHYDE (1,4-TOLUALDEHYDE)	PA
EPA 8315 A	PENTANAL (VALERALDEHYDE)	PA	EPA 8315 A	PROPIONALDEHYDE (PROPANAL)	PA
EPA 8330	NITROGLYCERIN	PA	EPA 8330 A	1,3,5-TRINITROBENZENE (1,3,5-TNB)	PA

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

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Virginia Laboratory ID: 460182
Effective Date: June 15, 2015
Expiration Date: June 14, 2016

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8330 A	1,3-DINITROBENZENE (1,3-DNB)	PA	EPA 8330 A	2,4,6-TRINITROTOLUENE (2,4,6-TNT)	PA
EPA 8330 A	2,4-DINITROTOLUENE (2,4-DNT)	PA	EPA 8330 A	2,6-DINITROTOLUENE (2,6-DNT)	PA
EPA 8330 A	2-AMINO-4,6-DINITROTOLUENE (2-AM-DNT)	PA	EPA 8330 A	2-NITROTOLUENE	PA
EPA 8330 A	3-NITROTOLUENE	PA	EPA 8330 A	4-AMINO-2,6-DINITROTOLUENE (4-AM-DNT)	PA
EPA 8330 A	4-NITROTOLUENE	PA	EPA 8330 A	METHYL-2,4,6-TRINITROPHENYLNITRAMINE (TETRYL)	PA
EPA 8330 A	NITROBENZENE	PA	EPA 8330 A	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	PA
EPA 8330 A	RDX (HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE)	PA	EPA 9012 A	CYANIDE	PA
EPA 9045 C	PH	PA	EPA 9045 D	PH	PA
EPA 9050 A	CONDUCTIVITY	PA	EPA 9060	TOTAL ORGANIC CARBON	PA
EPA 9066	TOTAL PHENOLICS	PA	EPA 9071 B	OIL AND GREASE (AS HEM)	PA
EPA 9081	CATION EXCHANGE CAPACITY	PA	EPA 9095 B	FREE LIQUID	PA

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF GENERAL SERVICES
DIVISION OF CONSOLIDATED LABORATORY SERVICES

Certifies that

VA Laboratory ID#: 460187
Microbac Laboratories, Inc.

158 Starlite Drive
Marietta, OH 45750

Owner: J. TREVOR BOYCE
Operator: DAVID E. VANDENBERG
Responsible Official: LESLIE BUCINA

Having met the requirements of 1 VAC 30-46
and the National Environmental Laboratory Accreditation Conference 2003 Standard
is hereby approved as an

Accredited Laboratory

As more fully described in the attached Scope of Accreditation

Effective Date: **September 15, 2014**
Expiration Date: **September 14, 2015**
Certificate # 6338

Denise M. Toney, Ph.D., HCLD
DGS Deputy Director for Laboratories

Continued accreditation status depends on successful ongoing participation in the program.
Certificate to be conspicuously displayed at the laboratory.
Not valid unless accompanied by a valid Virginia Environmental Laboratory Accreditation Program (VELAP) Scope of Accreditation.
Customers are urged to verify the laboratory's current accreditation status.

Certificate Not Transferable

Surrender Upon Revocation

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 6338

Microbac Laboratories, Inc.
158 Starlite Drive
Marietta, OH 45750

Virginia Laboratory ID: 460187
Effective Date: September 15, 2014
Expiration Date: September 14, 2015

NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 1010	FLASHPOINT	FL
EPA 160.4	RESIDUE-VOLATILE	FL
EPA 1664 A	TOTAL PETROLEUM HYDROCARBONS (TPH) (AS NONPOLAR MATERIAL, SGT-HEM)	FL
EPA 200.7 REV 4.4	ALUMINUM	FL
EPA 200.7 REV 4.4	ARSENIC	FL
EPA 200.7 REV 4.4	BERYLLIUM	FL
EPA 200.7 REV 4.4	CADMIUM	FL
EPA 200.7 REV 4.4	CHROMIUM	FL
EPA 200.7 REV 4.4	COPPER	FL
EPA 200.7 REV 4.4	LEAD	FL
EPA 200.7 REV 4.4	MANGANESE	FL
EPA 200.7 REV 4.4	NICKEL	FL
EPA 200.7 REV 4.4	POTASSIUM	FL
EPA 200.7 REV 4.4	SILICA AS SIO2	FL
EPA 200.7 REV 4.4	SODIUM	FL
EPA 200.7 REV 4.4	TIN	FL
EPA 200.7 REV 4.4	TOTAL HARDNESS AS CACO3	FL
EPA 200.7 REV 4.4	ZINC	FL
EPA 200.8 REV 5.4	ARSENIC	FL
EPA 200.8 REV 5.4	CADMIUM	FL
EPA 200.8 REV 5.4	COBALT	FL
EPA 200.8 REV 5.4	LEAD	FL
EPA 200.8 REV 5.4	NICKEL	FL
EPA 200.8 REV 5.4	SILVER	FL
EPA 200.8 REV 5.4	VANADIUM	FL
EPA 245.1 REV 3	MERCURY	FL
EPA 300.0 REV 2.1	CHLORIDE	FL
EPA 300.0 REV 2.1	NITRATE AS N	FL
EPA 300.0 REV 2.1	SULFATE	FL
EPA 350.1 REV 2	AMMONIA AS N	FL
EPA 353.2 REV 2	NITRATE AS N	FL
EPA 365.4	PHOSPHORUS, TOTAL	FL
EPA 6010 B	ALUMINUM	FL
EPA 6010 B	ARSENIC	FL
EPA 6010 B	BERYLLIUM	FL
EPA 6010 B	CADMIUM	FL
EPA 6010 B	CHROMIUM	FL
EPA 120.1	CONDUCTIVITY	FL
EPA 1664 A	OIL AND GREASE (AS HEM)	FL
EPA 180.1 REV 2	TURBIDITY	FL
EPA 200.7 REV 4.4	ANTIMONY	FL
EPA 200.7 REV 4.4	BARIUM	FL
EPA 200.7 REV 4.4	BORON	FL
EPA 200.7 REV 4.4	CALCIUM	FL
EPA 200.7 REV 4.4	COBALT	FL
EPA 200.7 REV 4.4	IRON	FL
EPA 200.7 REV 4.4	MAGNESIUM	FL
EPA 200.7 REV 4.4	MOLYBDENUM	FL
EPA 200.7 REV 4.4	PHOSPHORUS, TOTAL	FL
EPA 200.7 REV 4.4	SELENIUM	FL
EPA 200.7 REV 4.4	SILVER	FL
EPA 200.7 REV 4.4	THALLIUM	FL
EPA 200.7 REV 4.4	TITANIUM	FL
EPA 200.7 REV 4.4	VANADIUM	FL
EPA 200.8 REV 5.4	ANTIMONY	FL
EPA 200.8 REV 5.4	BARIUM	FL
EPA 200.8 REV 5.4	CHROMIUM	FL
EPA 200.8 REV 5.4	COPPER	FL
EPA 200.8 REV 5.4	MANGANESE	FL
EPA 200.8 REV 5.4	SELENIUM	FL
EPA 200.8 REV 5.4	THALLIUM	FL
EPA 200.8 REV 5.4	ZINC	FL
EPA 300.0 REV 2.1	BROMIDE	FL
EPA 300.0 REV 2.1	FLUORIDE	FL
EPA 300.0 REV 2.1	NITRITE AS N	FL
EPA 310.2	ALKALINITY AS CACO3	FL
EPA 351.2 REV 2	KJELDAHL NITROGEN - TOTAL	FL
EPA 353.2 REV 2	NITRATE/NITRITE	FL
EPA 410.4 REV 2	CHEMICAL OXYGEN DEMAND	FL
EPA 6010 B	ANTIMONY	FL
EPA 6010 B	BARIUM	FL
EPA 6010 B	BORON	FL
EPA 6010 B	CALCIUM	FL

Commonwealth of Virginia

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 6010 B	COBALT	FL
EPA 6010 B	IRON	FL
EPA 6010 B	LITHIUM	FL
EPA 6010 B	MANGANESE	FL
EPA 6010 B	NICKEL	FL
EPA 6010 B	POTASSIUM	FL
EPA 6010 B	SILICA AS SIO2	FL
EPA 6010 B	SODIUM	FL
EPA 6010 B	THALLIUM	FL
EPA 6010 B	TITANIUM	FL
EPA 6010 B	ZINC	FL
EPA 6010 C	ANTIMONY	FL
EPA 6010 C	BARIUM	FL
EPA 6010 C	BORON	FL
EPA 6010 C	CALCIUM	FL
EPA 6010 C	COBALT	FL
EPA 6010 C	IRON	FL
EPA 6010 C	LITHIUM	FL
EPA 6010 C	MANGANESE	FL
EPA 6010 C	NICKEL	FL
EPA 6010 C	POTASSIUM	FL
EPA 6010 C	SILICA AS SIO2	FL
EPA 6010 C	SODIUM	FL
EPA 6010 C	THALLIUM	FL
EPA 6010 C	TITANIUM	FL
EPA 6010 C	ZINC	FL
EPA 6020	ANTIMONY	FL
EPA 6020	BARIUM	FL
EPA 6020	CHROMIUM	FL
EPA 6020	COPPER	FL
EPA 6020	MANGANESE	FL
EPA 6020	SILVER	FL
EPA 6020	ZINC	FL
EPA 6020 A	ARSENIC	FL
EPA 6020 A	CADMIUM	FL
EPA 6020 A	COBALT	FL
EPA 6020 A	LEAD	FL
EPA 6020 A	NICKEL	FL
EPA 6010 B	COPPER	FL
EPA 6010 B	LEAD	FL
EPA 6010 B	MAGNESIUM	FL
EPA 6010 B	MOLYBDENUM	FL
EPA 6010 B	PHOSPHORUS, TOTAL	FL
EPA 6010 B	SELENIUM	FL
EPA 6010 B	SILVER	FL
EPA 6010 B	STRONTIUM	FL
EPA 6010 B	TIN	FL
EPA 6010 B	VANADIUM	FL
EPA 6010 C	ALUMINUM	FL
EPA 6010 C	ARSENIC	FL
EPA 6010 C	BERYLLIUM	FL
EPA 6010 C	CADMIUM	FL
EPA 6010 C	CHROMIUM	FL
EPA 6010 C	COPPER	FL
EPA 6010 C	LEAD	FL
EPA 6010 C	MAGNESIUM	FL
EPA 6010 C	MOLYBDENUM	FL
EPA 6010 C	PHOSPHORUS, TOTAL	FL
EPA 6010 C	SELENIUM	FL
EPA 6010 C	SILVER	FL
EPA 6010 C	STRONTIUM	FL
EPA 6010 C	TIN	FL
EPA 6010 C	VANADIUM	FL
EPA 6010 C - EXTENDED	SILICON	FL
EPA 6020	ARSENIC	FL
EPA 6020	CADMIUM	FL
EPA 6020	COBALT	FL
EPA 6020	LEAD	FL
EPA 6020	NICKEL	FL
EPA 6020	THALLIUM	FL
EPA 6020 A	ANTIMONY	FL
EPA 6020 A	BARIUM	FL
EPA 6020 A	CHROMIUM	FL
EPA 6020 A	COPPER	FL
EPA 6020 A	MANGANESE	FL
EPA 6020 A	SELENIUM	FL

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 6020 A	SILVER	FL
EPA 6020 A	VANADIUM	FL
EPA 6020 A - EXTENDED	URANIUM	FL
EPA 608	4,4'-DDE	FL
EPA 608	ALDRIN	FL
EPA 608	AROCLOR-1016 (PCB-1016)	FL
EPA 608	AROCLOR-1232 (PCB-1232)	FL
EPA 608	AROCLOR-1248 (PCB-1248)	FL
EPA 608	AROCLOR-1260 (PCB-1260)	FL
EPA 608	CHLORDANE (TECH.)	FL
EPA 608	DIELDRIN	FL
EPA 608	ENDOSULFAN II	FL
EPA 608	ENDRIN	FL
EPA 608	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	FL
EPA 608	HEPTACHLOR EPOXIDE	FL
EPA 624	1,1,1-TRICHLOROETHANE	FL
EPA 624	1,1,2-TRICHLOROETHANE	FL
EPA 624	1,2-DICHLOROBENZENE	FL
EPA 624	1,2-DICHLOROPROPANE	FL
EPA 624	1,4-DICHLOROBENZENE	FL
EPA 624	ACROLEIN (PROPENAL)	FL
EPA 624	BENZENE	FL
EPA 624	BROMOFORM	FL
EPA 624	CHLOROBENZENE	FL
EPA 624	CHLOROETHANE (ETHYL CHLORIDE)	FL
EPA 624	CIS-1,3-DICHLOROPROPENE	FL
EPA 624	METHYL BROMIDE (BROMOMETHANE)	FL
EPA 624	METHYLENE CHLORIDE (DICHLOROMETHANE)	FL
EPA 624	TOLUENE	FL
EPA 624	TRANS-1,3-DICHLOROPROPENE	FL

METHOD	ANALYTE	PRIMARY
EPA 6020 A	THALLIUM	FL
EPA 6020 A	ZINC	FL
EPA 608	4,4'-DDD	FL
EPA 608	4,4'-DDT	FL
EPA 608	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	FL
EPA 608	AROCLOR-1221 (PCB-1221)	FL
EPA 608	AROCLOR-1242 (PCB-1242)	FL
EPA 608	AROCLOR-1254 (PCB-1254)	FL
EPA 608	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	FL
EPA 608	DELTA-BHC	FL
EPA 608	ENDOSULFAN I	FL
EPA 608	ENDOSULFAN SULFATE	FL
EPA 608	ENDRIN ALDEHYDE	FL
EPA 608	HEPTACHLOR	FL
EPA 608	TOXAPHENE (CHLORINATED CAMPHENE)	FL
EPA 624	1,1,2,2-TETRACHLOROETHANE	FL
EPA 624	1,1-DICHLOROETHANE	FL
EPA 624	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	FL
EPA 624	1,3-DICHLOROBENZENE	FL
EPA 624	2-CHLOROETHYL VINYL ETHER	FL
EPA 624	ACRYLONITRILE	FL
EPA 624	BROMODICHLOROMETHANE	FL
EPA 624	CARBON TETRACHLORIDE	FL
EPA 624	CHLORODIBROMOMETHANE	FL
EPA 624	CHLOROFORM	FL
EPA 624	ETHYLBENZENE	FL
EPA 624	METHYL CHLORIDE (CHLOROMETHANE)	FL
EPA 624	TETRACHLOROETHENE (PERCHLOROETHENE)	FL
EPA 624	TRANS-1,2-DICHLOROETHENE	FL
EPA 624	TRICHLOROETHENE (TRICHLOROETHYLENE)	FL

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METHOD	ANALYTE	PRIMARY
EPA 624	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	FL
EPA 624 - EXTENDED	1,1-DICHLOROETHYLENE	FL
EPA 625	1,2,4-TRICHLOROBENZENE	FL
EPA 625	2,4-DICHLOROPHENOL	FL
EPA 625	2,4-DINITROPHENOL	FL
EPA 625	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 625	2-CHLOROPHENOL	FL
EPA 625	2-NITROPHENOL	FL
EPA 625	4-BROMOPHENYL PHENYL ETHER	FL
EPA 625	4-CHLOROPHENYL PHENYLETHER	FL
EPA 625	ACENAPHTHENE	FL
EPA 625	ANTHRACENE	FL
EPA 625	BENZO(A)ANTHRACENE	FL
EPA 625	BENZO(B)FLUORANTHENE	FL
EPA 625	BENZO(K)FLUORANTHENE	FL
EPA 625	BIS(2-CHLOROETHYL) ETHER	FL
EPA 625	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	FL
EPA 625	CHRYSENE	FL
EPA 625	DI-N-OCTYL PHTHALATE	FL
EPA 625	DIETHYL PHTHALATE	FL
EPA 625	FLUORANTHENE	FL
EPA 625	HEXACHLOROBENZENE	FL
EPA 625	HEXACHLOROCYCLOPENTADIENE	FL
EPA 625	INDENO(1,2,3-CD) PYRENE	FL
EPA 625	N-NITROSODI-N-PROPYLAMINE	FL
EPA 625	N-NITROSODIPHENYLAMINE	FL
EPA 625	NITROBENZENE	FL
EPA 625	PHENANTHRENE	FL
EPA 625	PYRENE	FL
EPA 7196 A	CHROMIUM VI	FL
EPA 8011	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	FL
EPA 8015 B	DIESEL RANGE ORGANICS (DRO)	FL
EPA 8015 C	DIESEL RANGE ORGANICS (DRO)	FL
EPA 8015 C	GASOLINE RANGE ORGANICS (GRO)	FL
EPA 624	VINYL CHLORIDE	FL
EPA 624 - EXTENDED	XYLENE (TOTAL)	FL
EPA 625	2,4,6-TRICHLOROPHENOL	FL
EPA 625	2,4-DIMETHYLPHENOL	FL
EPA 625	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 625	2-CHLORONAPHTHALENE	FL
EPA 625	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	FL
EPA 625	3,3'-DICHLOROBENZIDINE	FL
EPA 625	4-CHLORO-3-METHYLPHENOL	FL
EPA 625	4-NITROPHENOL	FL
EPA 625	ACENAPHTHYLENE	FL
EPA 625	BENZIDINE	FL
EPA 625	BENZO(A)PYRENE	FL
EPA 625	BENZO(G,H,I)PERYLENE	FL
EPA 625	BIS(2-CHLOROETHOXY)METHANE	FL
EPA 625	BIS(2-CHLOROISOPROPYL) ETHER	FL
EPA 625	BUTYL BENZYL PHTHALATE	FL
EPA 625	DI-N-BUTYL PHTHALATE	FL
EPA 625	DIBENZO(A,H) ANTHRACENE	FL
EPA 625	DIMETHYL PHTHALATE	FL
EPA 625	FLUORENE	FL
EPA 625	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA 625	HEXACHLOROETHANE	FL
EPA 625	ISOPHORONE	FL
EPA 625	N-NITROSODIMETHYLAMINE	FL
EPA 625	NAPHTHALENE	FL
EPA 625	PENTACHLOROPHENOL	FL
EPA 625	PHENOL	FL
EPA 6850	PERCHLORATE	FL
EPA 7470 A	MERCURY	FL
EPA 8011	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	FL
EPA 8015 B	ETHANOL	FL
EPA 8015 C	ETHANOL	FL
EPA 8015 C	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	FL

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METHOD	ANALYTE	PRIMARY
EPA 8015 C	METHANOL	FL
EPA 8015 D	ETHANOL	FL
EPA 8015 D	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	FL
EPA 8081 A	4,4'-DDD	FL
EPA 8081 A	4,4'-DDT	FL
EPA 8081 A	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 A	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 A	DELTA-BHC	FL
EPA 8081 A	ENDOSULFAN I	FL
EPA 8081 A	ENDOSULFAN SULFATE	FL
EPA 8081 A	ENDRIN ALDEHYDE	FL
EPA 8081 A	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 A	HEPTACHLOR	FL
EPA 8081 A	METHOXYCHLOR	FL
EPA 8081 B	4,4'-DDD	FL
EPA 8081 B	4,4'-DDT	FL
EPA 8081 B	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 B	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 B	DELTA-BHC	FL
EPA 8081 B	ENDOSULFAN I	FL
EPA 8081 B	ENDOSULFAN SULFATE	FL
EPA 8081 B	ENDRIN ALDEHYDE	FL
EPA 8081 B	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 B	HEPTACHLOR	FL
EPA 8081 B	METHOXYCHLOR	FL
EPA 8082	AROCLOR-1016 (PCB-1016)	FL
EPA 8082	AROCLOR-1232 (PCB-1232)	FL
EPA 8082	AROCLOR-1248 (PCB-1248)	FL
EPA 8082	AROCLOR-1260 (PCB-1260)	FL
EPA 8015 D	DIESEL RANGE ORGANICS (DRO)	FL
EPA 8015 D	GASOLINE RANGE ORGANICS (GRO)	FL
EPA 8015 D	METHANOL	FL
EPA 8081 A	4,4'-DDE	FL
EPA 8081 A	ALDRIN	FL
EPA 8081 A	ALPHA-CHLORDANE [CIS-CHLORDANE]	FL
EPA 8081 A	CHLORDANE (TECH.)	FL
EPA 8081 A	DIELDRIN	FL
EPA 8081 A	ENDOSULFAN II	FL
EPA 8081 A	ENDRIN	FL
EPA 8081 A	ENDRIN KETONE	FL
EPA 8081 A	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	FL
EPA 8081 A	HEPTACHLOR EPOXIDE	FL
EPA 8081 A	TOXAPHENE (CHLORINATED CAMPHENE)	FL
EPA 8081 B	4,4'-DDE	FL
EPA 8081 B	ALDRIN	FL
EPA 8081 B	ALPHA-CHLORDANE [CIS-CHLORDANE]	FL
EPA 8081 B	CHLORDANE (TECH.)	FL
EPA 8081 B	DIELDRIN	FL
EPA 8081 B	ENDOSULFAN II	FL
EPA 8081 B	ENDRIN	FL
EPA 8081 B	ENDRIN KETONE	FL
EPA 8081 B	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	FL
EPA 8081 B	HEPTACHLOR EPOXIDE	FL
EPA 8081 B	TOXAPHENE (CHLORINATED CAMPHENE)	FL
EPA 8082	AROCLOR-1221 (PCB-1221)	FL
EPA 8082	AROCLOR-1242 (PCB-1242)	FL
EPA 8082	AROCLOR-1254 (PCB-1254)	FL
EPA 8082 A	AROCLOR-1016 (PCB-1016)	FL

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METHOD	ANALYTE	PRIMARY
EPA 8082 A	AROCLOR-1221 (PCB-1221)	FL
EPA 8082 A	AROCLOR-1242 (PCB-1242)	FL
EPA 8082 A	AROCLOR-1254 (PCB-1254)	FL
EPA 8151 A	2,4,5-T	FL
EPA 8151 A	2,4-DB	FL
EPA 8151 A	DICAMBA	FL
EPA 8151 A	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	FL
EPA 8151 A	MCPP	FL
EPA 8151 A	SILVEX (2,4,5-TP)	FL
EPA 8260 B	1,1,1-TRICHLOROETHANE	FL
EPA 8260 B	1,1,2-TRICHLOROETHANE	FL
EPA 8260 B	1,1-DICHLOROETHYLENE	FL
EPA 8260 B	1,2,3-TRICHLOROBENZENE	FL
EPA 8260 B	1,2,4-TRICHLOROBENZENE	FL
EPA 8260 B	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	FL
EPA 8260 B	1,2-DICHLOROBENZENE	FL
EPA 8260 B	1,2-DICHLOROPROPANE	FL
EPA 8260 B	1,3-DICHLOROBENZENE	FL
EPA 8260 B	1,4-DICHLOROBENZENE	FL
EPA 8260 B	1-BUTANOL (N-BUTANOL)	FL
EPA 8260 B	2,2-DICHLOROPROPANE	FL
EPA 8260 B	2-CHLOROETHYL VINYL ETHER	FL
EPA 8260 B	2-HEXANONE	FL
EPA 8260 B	4-CHLOROTOLUENE	FL
EPA 8260 B	4-METHYL-2-PENTANONE (MIBK)	FL
EPA 8260 B	ACETONITRILE	FL
EPA 8260 B	ACRYLONITRILE	FL
EPA 8260 B	BENZENE	FL
EPA 8260 B	BROMOCHLOROMETHANE	FL
EPA 8260 B	BROMOFORM	FL
EPA 8260 B	CARBON TETRACHLORIDE	FL
EPA 8260 B	CHLORODIBROMOMETHANE	FL
EPA 8260 B	CHLOROFORM	FL

METHOD	ANALYTE	PRIMARY
EPA 8082 A	AROCLOR-1232 (PCB-1232)	FL
EPA 8082 A	AROCLOR-1248 (PCB-1248)	FL
EPA 8082 A	AROCLOR-1260 (PCB-1260)	FL
EPA 8151 A	2,4-D	FL
EPA 8151 A	DALAPON	FL
EPA 8151 A	DICHLOROPROP (DICHLORPROP)	FL
EPA 8151 A	MCPA	FL
EPA 8151 A	PENTACHLOROPHENOL	FL
EPA 8260 B	1,1,1,2-TETRACHLOROETHANE	FL
EPA 8260 B	1,1,2,2-TETRACHLOROETHANE	FL
EPA 8260 B	1,1-DICHLOROETHANE	FL
EPA 8260 B	1,1-DICHLOROPROPENE	FL
EPA 8260 B	1,2,3-TRICHLOROPROPANE	FL
EPA 8260 B	1,2,4-TRIMETHYLBENZENE	FL
EPA 8260 B	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	FL
EPA 8260 B	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	FL
EPA 8260 B	1,3,5-TRIMETHYLBENZENE	FL
EPA 8260 B	1,3-DICHLOROPROPANE	FL
EPA 8260 B	1,4-DIOXANE (1,4-DIETHYLENEOXIDE)	FL
EPA 8260 B	1-CHLOROHEXANE	FL
EPA 8260 B	2-BUTANONE (METHYL ETHYL KETONE, MEK)	FL
EPA 8260 B	2-CHLOROTOLUENE	FL
EPA 8260 B	2-NITROPROPANE	FL
EPA 8260 B	4-ISOPROPYLTOLUENE (P-CYMENE)	FL
EPA 8260 B	ACETONE	FL
EPA 8260 B	ACROLEIN (PROPENAL)	FL
EPA 8260 B	ALLYL CHLORIDE (3-CHLOROPROPENE)	FL
EPA 8260 B	BROMOBENZENE	FL
EPA 8260 B	BROMODICHLOROMETHANE	FL
EPA 8260 B	CARBON DISULFIDE	FL
EPA 8260 B	CHLOROBENZENE	FL
EPA 8260 B	CHLOROETHANE (ETHYL CHLORIDE)	FL
EPA 8260 B	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	FL

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EPA 8260 B	CIS-1,2-DICHLOROETHYLENE	FL
EPA 8260 B	DIBROMOFLUOROMETHANE	FL
EPA 8260 B	DICHLORODIFLUOROMETHANE (FREON-12)	FL
EPA 8260 B	ETHYL ACETATE	FL
EPA 8260 B	ETHYLBENZENE	FL
EPA 8260 B	IODOMETHANE (METHYL IODIDE)	FL
EPA 8260 B	ISOPROPYLBENZENE	FL
EPA 8260 B	METHACRYLONITRILE	FL
EPA 8260 B	METHYL CHLORIDE (CHLOROMETHANE)	FL
EPA 8260 B	METHYL TERT-BUTYL ETHER (MTBE)	FL
EPA 8260 B	N-BUTYLBENZENE	FL
EPA 8260 B	NAPHTHALENE	FL
EPA 8260 B	PROPIONITRILE (ETHYL CYANIDE)	FL
EPA 8260 B	STYRENE	FL
EPA 8260 B	TERT-BUTYLBENZENE	FL
EPA 8260 B	TOLUENE	FL
EPA 8260 B	TRANS-1,3-DICHLOROPROPENE	FL
EPA 8260 B	TRICHLOROETHENE (TRICHLOROETHYLENE)	FL
EPA 8260 B	VINYL ACETATE	FL
EPA 8260 B	XYLENE (TOTAL)	FL
EPA 8270 C	1,2,4-TRICHLOROBENZENE	FL
EPA 8270 C	1,2-DIPHENYLHYDRAZINE	FL
EPA 8270 C	1,3-DICHLOROBENZENE	FL
EPA 8270 C	1,4-DICHLOROBENZENE	FL
EPA 8270 C	1,4-PHENYLENEDIAMINE	FL
EPA 8270 C	2,3,4,6-TETRACHLOROPHENOL	FL
EPA 8270 C	2,4,6-TRICHLOROPHENOL	FL
EPA 8270 C	2,4-DIMETHYLPHENOL	FL
EPA 8270 C	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 8270 C	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 8270 C	2-CHLORONAPHTHALENE	FL
EPA 8270 C	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	FL
EPA 8260 B	CIS-1,3-DICHLOROPROPENE	FL
EPA 8260 B	DIBROMOMETHANE (METHYLENE BROMIDE)	FL
EPA 8260 B	DIETHYL ETHER	FL
EPA 8260 B	ETHYL METHACRYLATE	FL
EPA 8260 B	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA 8260 B	ISOBUTYL ALCOHOL (2-METHYL-1-PROPANOL)	FL
EPA 8260 B	M+P-XYLENE	FL
EPA 8260 B	METHYL BROMIDE (BROMOMETHANE)	FL
EPA 8260 B	METHYL METHACRYLATE	FL
EPA 8260 B	METHYLENE CHLORIDE (DICHLOROMETHANE)	FL
EPA 8260 B	N-PROPYLBENZENE	FL
EPA 8260 B	O-XYLENE	FL
EPA 8260 B	SEC-BUTYLBENZENE	FL
EPA 8260 B	TERT-BUTYL ALCOHOL	FL
EPA 8260 B	TETRACHLOROETHENE (PERCHLOROETHENE)	FL
EPA 8260 B	TRANS-1,2-DICHLOROETHENE	FL
EPA 8260 B	TRANS-1,4-DICHLORO-2-BUTENE	FL
EPA 8260 B	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	FL
EPA 8260 B	VINYL CHLORIDE	FL
EPA 8270 C	1,2,4,5-TETRACHLOROBENZENE	FL
EPA 8270 C	1,2-DICHLOROBENZENE	FL
EPA 8270 C	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL
EPA 8270 C	1,3-DINITROBENZENE (1,3-DNB)	FL
EPA 8270 C	1,4-NAPHTHOQUINONE	FL
EPA 8270 C	1-NAPHTHYLAMINE	FL
EPA 8270 C	2,4,5-TRICHLOROPHENOL	FL
EPA 8270 C	2,4-DICHLOROPHENOL	FL
EPA 8270 C	2,4-DINITROPHENOL	FL
EPA 8270 C	2,6-DICHLOROPHENOL	FL
EPA 8270 C	2-ACETYLAMINOFLUORENE	FL
EPA 8270 C	2-CHLOROPHENOL	FL
EPA 8270 C	2-METHYLNAPHTHALENE	FL

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NON-POTABLE WATER

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EPA 8270 C	2-METHYLPHENOL (O-CRESOL)	FL
EPA 8270 C	2-NITROANILINE	FL
EPA 8270 C	2-PICOLINE (2-METHYLPYRIDINE)	FL
EPA 8270 C	3,3'-DIMETHYLBENZIDINE	FL
EPA 8270 C	3-METHYLPHENOL (M-CRESOL)	FL
EPA 8270 C	4-AMINOBIPHENYL	FL
EPA 8270 C	4-CHLORO-3-METHYLPHENOL	FL
EPA 8270 C	4-CHLOROPHENYL PHENYLETHER	FL
EPA 8270 C	4-METHYLPHENOL (P-CRESOL)	FL
EPA 8270 C	4-NITROPHENOL	FL
EPA 8270 C	7,12-DIMETHYLBENZ(A) ANTHRACENE	FL
EPA 8270 C	ACENAPHTHENE	FL
EPA 8270 C	ACETOPHENONE	FL
EPA 8270 C	ANTHRACENE	FL
EPA 8270 C	BENZIDINE	FL
EPA 8270 C	BENZO(A)PYRENE	FL
EPA 8270 C	BENZO(G,H,I)PERYLENE	FL
EPA 8270 C	BENZOIC ACID	FL
EPA 8270 C	BIS(2-CHLOROETHOXY)METHANE	FL
EPA 8270 C	BIS(2-CHLOROISOPROPYL) ETHER	FL
EPA 8270 C	BUTYL BENZYL PHTHALATE	FL
EPA 8270 C	CHRYSENE	FL
EPA 8270 C	DI-N-OCTYL PHTHALATE	FL
EPA 8270 C	DIBENZO(A,H) ANTHRACENE	FL
EPA 8270 C	DIETHYL PHTHALATE	FL
EPA 8270 C	DIMETHYL PHTHALATE	FL
EPA 8270 C	DIPHENYLAMINE	FL
EPA 8270 C	ETHYL METHANESULFONATE	FL
EPA 8270 C	FLUORANTHENE	FL
EPA 8270 C	HEXACHLOROBENZENE	FL
EPA 8270 C	HEXACHLOROCYCLOPENTADIENE	FL
EPA 8270 C	HEXACHLOROPHENE	FL
EPA 8270 C	INDENO(1,2,3-CD) PYRENE	FL
EPA 8270 C	ISOPHORONE	FL
EPA 8270 C	KEPONE	FL
EPA 8270 C	2-NAPHTHYLAMINE	FL
EPA 8270 C	2-NITROPHENOL	FL
EPA 8270 C	3,3'-DICHLOROBENZIDINE	FL
EPA 8270 C	3-METHYLCHOLANTHRENE	FL
EPA 8270 C	3-NITROANILINE	FL
EPA 8270 C	4-BROMOPHENYL PHENYL ETHER	FL
EPA 8270 C	4-CHLOROANILINE	FL
EPA 8270 C	4-DIMETHYL AMINOAZOBENZENE	FL
EPA 8270 C	4-NITROANILINE	FL
EPA 8270 C	5-NITRO-O-TOLUIDINE	FL
EPA 8270 C	A-A-DIMETHYLPHENETHYLAMINE	FL
EPA 8270 C	ACENAPHTHYLENE	FL
EPA 8270 C	ANILINE	FL
EPA 8270 C	ARAMITE	FL
EPA 8270 C	BENZO(A)ANTHRACENE	FL
EPA 8270 C	BENZO(B)FLUORANTHENE	FL
EPA 8270 C	BENZO(K)FLUORANTHENE	FL
EPA 8270 C	BENZYL ALCOHOL	FL
EPA 8270 C	BIS(2-CHLOROETHYL) ETHER	FL
EPA 8270 C	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	FL
EPA 8270 C	CHLOROBENZILATE	FL
EPA 8270 C	DI-N-BUTYL PHTHALATE	FL
EPA 8270 C	DIALLATE	FL
EPA 8270 C	DIBENZOFURAN	FL
EPA 8270 C	DIMETHOATE	FL
EPA 8270 C	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	FL
EPA 8270 C	DISULFOTON	FL
EPA 8270 C	FAMPHUR	FL
EPA 8270 C	FLUORENE	FL
EPA 8270 C	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA 8270 C	HEXACHLOROETHANE	FL
EPA 8270 C	HEXACHLOROPROPENE	FL
EPA 8270 C	ISODRIN	FL
EPA 8270 C	ISOSAFROLE	FL
EPA 8270 C	MALATHION	FL

Scope of Accreditation

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8270 C	METHAPYRILENE	FL
EPA 8270 C	METHYL PARATHION (PARATHION, METHYL)	FL
EPA 8270 C	N-NITROSODI-N-PROPYLAMINE	FL
EPA 8270 C	N-NITROSODIMETHYLAMINE	FL
EPA 8270 C	N-NITROSOMETHYLETHYLAMINE	FL
EPA 8270 C	N-NITROSOPIPERIDINE	FL
EPA 8270 C	NAPHTHALENE	FL
EPA 8270 C	NITROQUINOLINE-1-OXIDE	FL
EPA 8270 C	O-TOLUIDINE (2-METHYLANILINE)	FL
EPA 8270 C	PENTACHLORONITROBENZENE	FL
EPA 8270 C	PHENACETIN	FL
EPA 8270 C	PHENOL	FL
EPA 8270 C	PRONAMIDE (KERB)	FL
EPA 8270 C	PYRIDINE	FL
EPA 8270 C	SULFOTEPP (TETRAETHYL DITHIOPYROPHOSPHATE)	FL
EPA 8270 C	TETRAETHYL PYROPHOSPHATE (TEPP)	FL
EPA 8270 D	1,2,4,5-TETRACHLOROBENZENE	FL
EPA 8270 D	1,2-DICHLOROBENZENE	FL
EPA 8270 D	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL
EPA 8270 D	1,3-DINITROBENZENE (1,3-DNB)	FL
EPA 8270 D	1,4-NAPHTHOQUINONE	FL
EPA 8270 D	1-NAPHTHYLAMINE	FL
EPA 8270 D	2,4,5-TRICHLOROPHENOL	FL
EPA 8270 D	2,4-DICHLOROPHENOL	FL
EPA 8270 D	2,4-DINITROPHENOL	FL
EPA 8270 D	2,6-DICHLOROPHENOL	FL
EPA 8270 D	2-ACETYLAMINOFLUORENE	FL
EPA 8270 D	2-CHLOROPHENOL	FL
EPA 8270 D	2-METHYLNAPHTHALENE	FL
EPA 8270 D	2-NAPHTHYLAMINE	FL
EPA 8270 D	2-NITROPHENOL	FL
EPA 8270 D	3,3'-DICHLOROBENZIDINE	FL
EPA 8270 D	3-METHYLCHOLANTHRENE	FL
EPA 8270 D	4-AMINOBIPHENYL	FL
EPA 8270 D	4-CHLORO-3-METHYLPHENOL	FL
EPA 8270 C	METHYL METHANESULFONATE	FL
EPA 8270 C	N-NITROSO-DI-N-BUTYLAMINE	FL
EPA 8270 C	N-NITROSODIETHYLAMINE	FL
EPA 8270 C	N-NITROSODIPHENYLAMINE	FL
EPA 8270 C	N-NITROSOMORPHOLINE	FL
EPA 8270 C	N-NITROSOPYRROLIDINE	FL
EPA 8270 C	NITROBENZENE	FL
EPA 8270 C	O,O,O-TRIETHYL PHOSPHOROTHIOATE	FL
EPA 8270 C	PARATHION (PARATHION - ETHYL)	FL
EPA 8270 C	PENTACHLOROPHENOL	FL
EPA 8270 C	PHENANTHRENE	FL
EPA 8270 C	PHORATE	FL
EPA 8270 C	PYRENE	FL
EPA 8270 C	SAFROLE	FL
EPA 8270 C	TETRACHLORVINPHOS (STIROPHOS, GARDONA) Z-ISOMER	FL
EPA 8270 C	THIONAZIN (ZINOPHOS)	FL
EPA 8270 D	1,2,4-TRICHLOROBENZENE	FL
EPA 8270 D	1,2-DIPHENYLHYDRAZINE	FL
EPA 8270 D	1,3-DICHLOROBENZENE	FL
EPA 8270 D	1,4-DICHLOROBENZENE	FL
EPA 8270 D	1,4-PHENYLENEDIAMINE	FL
EPA 8270 D	2,3,4,6-TETRACHLOROPHENOL	FL
EPA 8270 D	2,4,6-TRICHLOROPHENOL	FL
EPA 8270 D	2,4-DIMETHYLPHENOL	FL
EPA 8270 D	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 8270 D	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 8270 D	2-CHLORONAPHTHALENE	FL
EPA 8270 D	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	FL
EPA 8270 D	2-METHYLPHENOL (O-CRESOL)	FL
EPA 8270 D	2-NITROANILINE	FL
EPA 8270 D	2-PICOLINE (2-METHYLPYRIDINE)	FL
EPA 8270 D	3,3'-DIMETHYLBENZIDINE	FL
EPA 8270 D	3-NITROANILINE	FL
EPA 8270 D	4-BROMOPHENYL PHENYL ETHER	FL
EPA 8270 D	4-CHLOROANILINE	FL

Commonwealth of Virginia

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8270 D	4-CHLOROPHENYL PHENYLETHER	FL
EPA 8270 D	4-METHYLPHENOL (P-CRESOL)	FL
EPA 8270 D	4-NITROPHENOL	FL
EPA 8270 D	7,12-DIMETHYLBENZ(A) ANTHRACENE	FL
EPA 8270 D	ACENAPHTHENE	FL
EPA 8270 D	ACETOPHENONE	FL
EPA 8270 D	ANTHRACENE	FL
EPA 8270 D	BENZIDINE	FL
EPA 8270 D	BENZO(A)PYRENE	FL
EPA 8270 D	BENZO(G,H,I)PERYLENE	FL
EPA 8270 D	BENZOIC ACID	FL
EPA 8270 D	BIS(2-CHLOROETHOXY)METHANE	FL
EPA 8270 D	BIS(2-CHLOROISOPROPYL) ETHER	FL
EPA 8270 D	BUTYL BENZYL PHTHALATE	FL
EPA 8270 D	CHRYSENE	FL
EPA 8270 D	DI-N-OCTYL PHTHALATE	FL
EPA 8270 D	DIBENZO(A,H) ANTHRACENE	FL
EPA 8270 D	DIETHYL PHTHALATE	FL
EPA 8270 D	DIMETHYL PHTHALATE	FL
EPA 8270 D	DIPHENYLAMINE	FL
EPA 8270 D	ETHYL METHANESULFONATE	FL
EPA 8270 D	FLUORANTHENE	FL
EPA 8270 D	HEXACHLOROBENZENE	FL
EPA 8270 D	HEXACHLOROCYCLOPENTADIENE	FL
EPA 8270 D	HEXACHLOROPHENE	FL
EPA 8270 D	INDENO(1,2,3-CD) PYRENE	FL
EPA 8270 D	ISOPHORONE	FL
EPA 8270 D	KEPONE	FL
EPA 8270 D	METHAPYRILENE	FL
EPA 8270 D	METHYL PARATHION (PARATHION, METHYL)	FL
EPA 8270 D	N-NITROSODI-N-PROPYLAMINE	FL
EPA 8270 D	N-NITROSODIMETHYLAMINE	FL
EPA 8270 D	N-NITROSOMETHYLETHYLAMINE	FL
EPA 8270 D	N-NITROSOPIPERIDINE	FL
EPA 8270 D	4-DIMETHYL AMINOAZOBENZENE	FL
EPA 8270 D	4-NITROANILINE	FL
EPA 8270 D	5-NITRO-O-TOLUIDINE	FL
EPA 8270 D	A-A-DIMETHYLPHENETHYLAMINE	FL
EPA 8270 D	ACENAPHTHYLENE	FL
EPA 8270 D	ANILINE	FL
EPA 8270 D	ARAMITE	FL
EPA 8270 D	BENZO(A)ANTHRACENE	FL
EPA 8270 D	BENZO(B)FLUORANTHENE	FL
EPA 8270 D	BENZO(K)FLUORANTHENE	FL
EPA 8270 D	BENZYL ALCOHOL	FL
EPA 8270 D	BIS(2-CHLOROETHYL) ETHER	FL
EPA 8270 D	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	FL
EPA 8270 D	CHLOROBENZILATE	FL
EPA 8270 D	DI-N-BUTYL PHTHALATE	FL
EPA 8270 D	DIALLATE	FL
EPA 8270 D	DIBENZOFURAN	FL
EPA 8270 D	DIMETHOATE	FL
EPA 8270 D	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	FL
EPA 8270 D	DISULFOTON	FL
EPA 8270 D	FAMPHUR	FL
EPA 8270 D	FLUORENE	FL
EPA 8270 D	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA 8270 D	HEXACHLOROETHANE	FL
EPA 8270 D	HEXACHLOROPROPENE	FL
EPA 8270 D	ISODRIN	FL
EPA 8270 D	ISOSAFROLE	FL
EPA 8270 D	MALATHION	FL
EPA 8270 D	METHYL METHANESULFONATE	FL
EPA 8270 D	N-NITROSO-DI-N-BUTYLAMINE	FL
EPA 8270 D	N-NITROSODIETHYLAMINE	FL
EPA 8270 D	N-NITROSODIPHENYLAMINE	FL
EPA 8270 D	N-NITROSOMORPHOLINE	FL
EPA 8270 D	N-NITROSOPYRROLIDINE	FL

Commonwealth of Virginia

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8270 D	NAPHTHALENE	FL
EPA 8270 D	NITROQUINOLINE-1-OXIDE	FL
EPA 8270 D	O-TOLUIDINE (2-METHYLANILINE)	FL
EPA 8270 D	PENTACHLORONITROBENZENE	FL
EPA 8270 D	PHENACETIN	FL
EPA 8270 D	PHENOL	FL
EPA 8270 D	PRONAMIDE (KERB)	FL
EPA 8270 D	SAFROLE	FL
EPA 8270 D	TETRACHLORVINPHOS (STIROPHOS, GARDONA) Z-ISOMER	FL
EPA 8270 D	THIONAZIN (ZINOPHOS)	FL
EPA 8270 D - EXTENDED	CARBAZOLE	FL
EPA 8330 A	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL
EPA 8330 A	2,4,6-TRINITROTOLUENE (2,4,6-TNT)	FL
EPA 8330 A	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 8330 A	2-NITROTOLUENE	FL
EPA 8330 A	4-AMINO-2,6-DINITROTOLUENE (4-AM-DNT)	FL
EPA 8330 A	METHYL-2,4,6-TRINITROPHENYLNITRAMINE (TETRYL)	FL
EPA 8330 A	NITROGLYCERIN	FL
EPA 8330 A	RDX (HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE)	FL
EPA 8330 B	1,3-DINITROBENZENE (1,3-DNB)	FL
EPA 8330 B	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 8330 B	2-AMINO-4,6-DINITROTOLUENE (2-AM-DNT)	FL
EPA 8330 B	3-NITROTOLUENE	FL
EPA 8330 B	4-NITROTOLUENE	FL
EPA 8330 B	NITROBENZENE	FL
EPA 8330 B	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	FL
EPA 8330 B	RDX (HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE)	FL
EPA 9056	BROMIDE	FL
EPA 9056	FLUORIDE	FL
EPA 8270 D	NITROBENZENE	FL
EPA 8270 D	O,O,O-TRIETHYL PHOSPHOROTHIOATE	FL
EPA 8270 D	PARATHION (PARATHION - ETHYL)	FL
EPA 8270 D	PENTACHLOROPHENOL	FL
EPA 8270 D	PHENANTHRENE	FL
EPA 8270 D	PHORATE	FL
EPA 8270 D	PYRENE	FL
EPA 8270 D	SULFOTEPP (TETRAETHYL DITHIOPYROPHOSPHATE)	FL
EPA 8270 D	TETRAETHYL PYROPHOSPHATE (TEPP)	FL
EPA 8270 D - EXTENDED	3+4-METHYL PHENOL (M+P CRESOL)	FL
EPA 8315 A	FORMALDEHYDE	FL
EPA 8330 A	1,3-DINITROBENZENE (1,3-DNB)	FL
EPA 8330 A	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 8330 A	2-AMINO-4,6-DINITROTOLUENE (2-AM-DNT)	FL
EPA 8330 A	3-NITROTOLUENE	FL
EPA 8330 A	4-NITROTOLUENE	FL
EPA 8330 A	NITROBENZENE	FL
EPA 8330 A	OCTAHYDRO-1,3,5,7-TETRANITRO-1,3,5,7-TETRAZOCINE (HMX)	FL
EPA 8330 B	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL
EPA 8330 B	2,4,6-TRINITROTOLUENE (2,4,6-TNT)	FL
EPA 8330 B	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 8330 B	2-NITROTOLUENE	FL
EPA 8330 B	4-AMINO-2,6-DINITROTOLUENE (4-AM-DNT)	FL
EPA 8330 B	METHYL-2,4,6-TRINITROPHENYLNITRAMINE (TETRYL)	FL
EPA 8330 B	NITROGLYCERIN	FL
EPA 8330 B	PENTAERYTHRITOLTETRANITRATE	FL
EPA 9014	AMENABLE CYANIDE	FL
EPA 9056	CHLORIDE	FL
EPA 9056	NITRITE	FL

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 9056	SULFATE	FL
EPA 9060 A	TOTAL ORGANIC CARBON	FL
OVL HPLC07/HPLC-MS-MS	HEXAMETHYLPHOSPHORAMIDE (HMPA)	FL
OVL HPLC07/HPLC-MS-MS	TETRAMETHYLPHOSPHORAMIDE (TMPA)	FL
RSK-175	ETHANE	FL
RSK-175	METHANE	FL
SM 2310 B-2011	ACIDITY, AS CACO3	FL
SM 2340 C-2011	TOTAL HARDNESS AS CACO3	FL
SM 2540 D-2011	RESIDUE-NONFILTERABLE (TSS)	FL
SM 3500-CR B-2011	CHROMIUM VI	FL
SM 4500-CN^- E-2011	CYANIDE	FL
SM 4500-F^- C-2011	FLUORIDE	FL
SM 4500-$NO3^-$ E-2011	NITRATE AS N	FL
SM 4500-$S2^-$ F-2011	SULFIDE	FL
SM 5210 B-2011	CARBONACEOUS BOD, CBOD	FL
SM 5540 C-2011	SURFACTANTS - MBAS	FL

METHOD	ANALYTE	PRIMARY
EPA 9056 A	NITRATE AS N	FL
HACH 8000	CHEMICAL OXYGEN DEMAND	FL
OVL HPLC07/HPLC-MS-MS	PENTAMETHYLPHOSPHORAMIDE (PMPA)	FL
OVL HPLC07/HPLC-MS-MS	TRIMETHYLPHOSPHORAMIDE (TRIMPA)	FL
RSK-175	ETHENE	FL
SM 2120 B-2011	COLOR	FL
SM 2320 B-2011	ALKALINITY AS CACO3	FL
SM 2540 B-2011	RESIDUE-TOTAL	FL
SM 2540 F-2011	RESIDUE-SETTLEABLE	FL
SM 4500-CL^- E-2011	CHLORIDE	FL
SM 4500-CN^- G-2011	AMENABLE CYANIDE	FL
SM 4500-$NO2^-$ B-2011	NITRITE AS N	FL
SM 4500-P E-2011	ORTHOPHOSPHATE AS P	FL
SM 5210 B-2011	BIOCHEMICAL OXYGEN DEMAND	FL
SM 5310 C-2011	TOTAL ORGANIC CARBON	FL

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 1010 A	FLASHPOINT	FL
EPA 1312	PREP: SYNTHETIC PRECIPITATION LEACHING PROCEDURE	FL
EPA 6010 B	ANTIMONY	FL
EPA 6010 B	BARIUM	FL
EPA 6010 B	BORON	FL
EPA 6010 B	CALCIUM	FL
EPA 6010 B	COBALT	FL
EPA 6010 B	IRON	FL
EPA 6010 B	LITHIUM	FL
EPA 6010 B	MANGANESE	FL
EPA 6010 B	NICKEL	FL
EPA 6010 B	POTASSIUM	FL
EPA 6010 B	SILVER	FL
EPA 6010 B	STRONTIUM	FL
EPA 6010 B	TIN	FL
EPA 6010 B	VANADIUM	FL
EPA 6010 C	ALUMINUM	FL

METHOD	ANALYTE	PRIMARY
EPA 1311	PREP: TOXICITY CHARACTERISTIC LEACHING PROCEDURE	FL
EPA 6010 B	ALUMINUM	FL
EPA 6010 B	ARSENIC	FL
EPA 6010 B	BERYLLIUM	FL
EPA 6010 B	CADMIUM	FL
EPA 6010 B	CHROMIUM	FL
EPA 6010 B	COPPER	FL
EPA 6010 B	LEAD	FL
EPA 6010 B	MAGNESIUM	FL
EPA 6010 B	MOLYBDENUM	FL
EPA 6010 B	PHOSPHORUS, TOTAL	FL
EPA 6010 B	SELENIUM	FL
EPA 6010 B	SODIUM	FL
EPA 6010 B	THALLIUM	FL
EPA 6010 B	TITANIUM	FL
EPA 6010 B	ZINC	FL
EPA 6010 C	ANTIMONY	FL

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 6010 C	ARSENIC	FL
EPA 6010 C	BERYLLIUM	FL
EPA 6010 C	CADMIUM	FL
EPA 6010 C	CHROMIUM	FL
EPA 6010 C	COPPER	FL
EPA 6010 C	LEAD	FL
EPA 6010 C	MAGNESIUM	FL
EPA 6010 C	MOLYBDENUM	FL
EPA 6010 C	PHOSPHORUS, TOTAL	FL
EPA 6010 C	SELENIUM	FL
EPA 6010 C	SODIUM	FL
EPA 6010 C	THALLIUM	FL
EPA 6010 C	TITANIUM	FL
EPA 6010 C	ZINC	FL
EPA 6020	ARSENIC	FL
EPA 6020	CADMIUM	FL
EPA 6020	COBALT	FL
EPA 6020	LEAD	FL
EPA 6020	NICKEL	FL
EPA 6020	THALLIUM	FL
EPA 6020 - EXTENDED	URANIUM	FL
EPA 6020 A	ARSENIC	FL
EPA 6020 A	CADMIUM	FL
EPA 6020 A	COBALT	FL
EPA 6020 A	LEAD	FL
EPA 6020 A	NICKEL	FL
EPA 6020 A	SILVER	FL
EPA 6020 A	VANADIUM	FL
EPA 6020 A - EXTENDED	URANIUM	FL
EPA 7196 A	CHROMIUM VI	FL
EPA 7471 B	MERCURY	FL
EPA 8015 B	ETHANOL	FL
EPA 8015 B	GASOLINE RANGE ORGANICS (GRO)	FL
EPA 8015 C	ETHANOL	FL
EPA 8015 C	GASOLINE RANGE ORGANICS (GRO)	FL
EPA 8015 D	METHANOL	FL
EPA 8081 A	4,4'-DDE	FL

METHOD	ANALYTE	PRIMARY
EPA 6010 C	BARIUM	FL
EPA 6010 C	BORON	FL
EPA 6010 C	CALCIUM	FL
EPA 6010 C	COBALT	FL
EPA 6010 C	IRON	FL
EPA 6010 C	LITHIUM	FL
EPA 6010 C	MANGANESE	FL
EPA 6010 C	NICKEL	FL
EPA 6010 C	POTASSIUM	FL
EPA 6010 C	SILVER	FL
EPA 6010 C	STRONTIUM	FL
EPA 6010 C	TIN	FL
EPA 6010 C	VANADIUM	FL
EPA 6020	ANTIMONY	FL
EPA 6020	BARIUM	FL
EPA 6020	CHROMIUM	FL
EPA 6020	COPPER	FL
EPA 6020	MANGANESE	FL
EPA 6020	SILVER	FL
EPA 6020	ZINC	FL
EPA 6020 A	ANTIMONY	FL
EPA 6020 A	BARIUM	FL
EPA 6020 A	CHROMIUM	FL
EPA 6020 A	COPPER	FL
EPA 6020 A	MANGANESE	FL
EPA 6020 A	SELENIUM	FL
EPA 6020 A	THALLIUM	FL
EPA 6020 A	ZINC	FL
EPA 6850	PERCHLORATE	FL
EPA 7471 A	MERCURY	FL
EPA 8015 B	DIESEL RANGE ORGANICS (DRO)	FL
EPA 8015 B	ETHYLENE GLYCOL	FL
EPA 8015 B	ISOPROPYL ALCOHOL (2-PROPANOL, ISOPROPANOL)	FL
EPA 8015 C	ETHYLENE GLYCOL	FL
EPA 8015 D	ETHANOL	FL
EPA 8081 A	4,4'-DDD	FL
EPA 8081 A	4,4'-DDT	FL

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 6338

Microbac Laboratories, Inc.
158 Starlite Drive
Marietta, OH 45750

Virginia Laboratory ID: 460187
Effective Date: September 15, 2014
Expiration Date: September 14, 2015

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8081 A	ALDRIN	FL
EPA 8081 A	ALPHA-CHLORDANE [CIS-CHLORDANE]	FL
EPA 8081 A	CHLORDANE (TECH.)	FL
EPA 8081 A	DIELDRIN	FL
EPA 8081 A	ENDOSULFAN II	FL
EPA 8081 A	ENDRIN	FL
EPA 8081 A	ENDRIN KETONE	FL
EPA 8081 A	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	FL
EPA 8081 A	HEPTACHLOR EPOXIDE	FL
EPA 8081 A	TOXAPHENE (CHLORINATED CAMPHENE)	FL
EPA 8081 B	4,4'-DDE	FL
EPA 8081 B	ALDRIN	FL
EPA 8081 B	ALPHA-CHLORDANE [CIS-CHLORDANE]	FL
EPA 8081 B	CHLORDANE (TECH.)	FL
EPA 8081 B	DIELDRIN	FL
EPA 8081 B	ENDOSULFAN II	FL
EPA 8081 B	ENDRIN	FL
EPA 8081 B	ENDRIN KETONE	FL
EPA 8081 B	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	FL
EPA 8081 B	HEPTACHLOR EPOXIDE	FL
EPA 8081 B	TOXAPHENE (CHLORINATED CAMPHENE)	FL
EPA 8082	AROCLOR-1221 (PCB-1221)	FL
EPA 8082	AROCLOR-1242 (PCB-1242)	FL
EPA 8082	AROCLOR-1254 (PCB-1254)	FL
EPA 8082 A	AROCLOR-1016 (PCB-1016)	FL
EPA 8082 A	AROCLOR-1232 (PCB-1232)	FL
EPA 8082 A	AROCLOR-1248 (PCB-1248)	FL
EPA 8081 A	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 A	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 A	DELTA-BHC	FL
EPA 8081 A	ENDOSULFAN I	FL
EPA 8081 A	ENDOSULFAN SULFATE	FL
EPA 8081 A	ENDRIN ALDEHYDE	FL
EPA 8081 A	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 A	HEPTACHLOR	FL
EPA 8081 A	METHOXYCHLOR	FL
EPA 8081 B	4,4'-DDD	FL
EPA 8081 B	4,4'-DDT	FL
EPA 8081 B	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 B	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 B	DELTA-BHC	FL
EPA 8081 B	ENDOSULFAN I	FL
EPA 8081 B	ENDOSULFAN SULFATE	FL
EPA 8081 B	ENDRIN ALDEHYDE	FL
EPA 8081 B	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 B	HEPTACHLOR	FL
EPA 8081 B	METHOXYCHLOR	FL
EPA 8082	AROCLOR-1016 (PCB-1016)	FL
EPA 8082	AROCLOR-1232 (PCB-1232)	FL
EPA 8082	AROCLOR-1248 (PCB-1248)	FL
EPA 8082	AROCLOR-1260 (PCB-1260)	FL
EPA 8082 A	AROCLOR-1221 (PCB-1221)	FL
EPA 8082 A	AROCLOR-1242 (PCB-1242)	FL
EPA 8082 A	AROCLOR-1254 (PCB-1254)	FL

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8082 A	AROCLOR-1260 (PCB-1260)	FL
EPA 8151 A	2,4-D	FL
EPA 8151 A	DALAPON	FL
EPA 8151 A	DICHLOROPROP (DICHLORPROP)	FL
EPA 8151 A	MCPA	FL
EPA 8151 A	PENTACHLOROPHENOL	FL
EPA 8260 B	1,1,1,2-TETRACHLOROETHANE	FL
EPA 8260 B	1,1,2,2-TETRACHLOROETHANE	FL
EPA 8260 B	1,1-DICHLOROETHANE	FL
EPA 8260 B	1,1-DICHLOROPROPENE	FL
EPA 8260 B	1,2,3-TRICHLOROPROPANE	FL
EPA 8260 B	1,2,4-TRIMETHYLBENZENE	FL
EPA 8260 B	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	FL
EPA 8260 B	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	FL
EPA 8260 B	1,3,5-TRIMETHYLBENZENE	FL
EPA 8260 B	1,3-DICHLOROPROPANE	FL
EPA 8260 B	1,4-DIOXANE (1,4-DIETHYLENEOXIDE)	FL
EPA 8260 B	1-CHLOROHEXANE	FL
EPA 8260 B	2-BUTANONE (METHYL ETHYL KETONE, MEK)	FL
EPA 8260 B	2-CHLOROTOLUENE	FL
EPA 8260 B	2-NITROPROPANE	FL
EPA 8260 B	4-ISOPROPYLTOLUENE (P-CYMENE)	FL
EPA 8260 B	ACETONE	FL
EPA 8260 B	ACROLEIN (PROPENAL)	FL
EPA 8260 B	ALLYL CHLORIDE (3-CHLOROPROPENE)	FL
EPA 8260 B	BROMOBENZENE	FL
EPA 8260 B	BROMODICHLOROMETHANE	FL
EPA 8260 B	CARBON DISULFIDE	FL
EPA 8260 B	CHLOROBENZENE	FL
EPA 8260 B	CHLOROETHANE (ETHYL CHLORIDE)	FL
EPA 8260 B	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	FL
EPA 8260 B	CIS-1,3-DICHLOROPROPENE	FL
EPA 8151 A	2,4,5-T	FL
EPA 8151 A	2,4-DB	FL
EPA 8151 A	DICAMBA	FL
EPA 8151 A	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	FL
EPA 8151 A	MCPP	FL
EPA 8151 A	SILVEX (2,4,5-TP)	FL
EPA 8260 B	1,1,1-TRICHLOROETHANE	FL
EPA 8260 B	1,1,2-TRICHLOROETHANE	FL
EPA 8260 B	1,1-DICHLOROETHYLENE	FL
EPA 8260 B	1,2,3-TRICHLOROBENZENE	FL
EPA 8260 B	1,2,4-TRICHLOROBENZENE	FL
EPA 8260 B	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	FL
EPA 8260 B	1,2-DICHLOROBENZENE	FL
EPA 8260 B	1,2-DICHLOROPROPANE	FL
EPA 8260 B	1,3-DICHLOROBENZENE	FL
EPA 8260 B	1,4-DICHLOROBENZENE	FL
EPA 8260 B	1-BUTANOL (N-BUTANOL)	FL
EPA 8260 B	2,2-DICHLOROPROPANE	FL
EPA 8260 B	2-CHLOROETHYL VINYL ETHER	FL
EPA 8260 B	2-HEXANONE	FL
EPA 8260 B	4-CHLOROTOLUENE	FL
EPA 8260 B	4-METHYL-2-PENTANONE (MIBK)	FL
EPA 8260 B	ACETONITRILE	FL
EPA 8260 B	ACRYLONITRILE	FL
EPA 8260 B	BENZENE	FL
EPA 8260 B	BROMOCHLOROMETHANE	FL
EPA 8260 B	BROMOFORM	FL
EPA 8260 B	CARBON TETRACHLORIDE	FL
EPA 8260 B	CHLORODIBROMOMETHANE	FL
EPA 8260 B	CHLOROFORM	FL
EPA 8260 B	CIS-1,2-DICHLOROETHYLENE	FL
EPA 8260 B	DIBROMOFLUOROMETHANE	FL

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8260 B	DIBROMOMETHANE (METHYLENE BROMIDE)	FL
EPA 8260 B	DIETHYL ETHER	FL
EPA 8260 B	ETHYL METHACRYLATE	FL
EPA 8260 B	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA 8260 B	ISOBUTYL ALCOHOL (2-METHYL-1-PROPANOL)	FL
EPA 8260 B	METHACRYLONITRILE	FL
EPA 8260 B	METHYL CHLORIDE (CHLOROMETHANE)	FL
EPA 8260 B	METHYL TERT-BUTYL ETHER (MTBE)	FL
EPA 8260 B	N-BUTYLBENZENE	FL
EPA 8260 B	NAPHTHALENE	FL
EPA 8260 B	SEC-BUTYLBENZENE	FL
EPA 8260 B	TERT-BUTYL ALCOHOL	FL
EPA 8260 B	TETRACHLOROETHENE (PERCHLOROETHENE)	FL
EPA 8260 B	TRANS-1,2-DICHLOROETHENE	FL
EPA 8260 B	TRANS-1,4-DICHLORO-2-BUTENE	FL
EPA 8260 B	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	FL
EPA 8260 B	VINYL CHLORIDE	FL
EPA 8270 C	1,2,4,5-TETRACHLOROBENZENE	FL
EPA 8270 C	1,2-DICHLOROBENZENE	FL
EPA 8270 C	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL
EPA 8270 C	1,3-DINITROBENZENE (1,3-DNB)	FL
EPA 8270 C	1,4-NAPHTHOQUINONE	FL
EPA 8270 C	1-NAPHTHYLAMINE	FL
EPA 8270 C	2,4,5-TRICHLOROPHENOL	FL
EPA 8270 C	2,4-DICHLOROPHENOL	FL
EPA 8270 C	2,4-DINITROPHENOL	FL
EPA 8270 C	2,6-DICHLOROPHENOL	FL
EPA 8270 C	2-ACETYLAMINOFLUORENE	FL
EPA 8270 C	2-CHLOROPHENOL	FL
EPA 8270 C	2-METHYLNAPHTHALENE	FL
EPA 8270 C	2-NAPHTHYLAMINE	FL
EPA 8270 C	2-NITROPHENOL	FL

METHOD	ANALYTE	PRIMARY
EPA 8260 B	DICHLORODIFLUOROMETHANE (FREON-12)	FL
EPA 8260 B	ETHYL ACETATE	FL
EPA 8260 B	ETHYLBENZENE	FL
EPA 8260 B	IODOMETHANE (METHYL IODIDE)	FL
EPA 8260 B	ISOPROPYLBENZENE	FL
EPA 8260 B	METHYL BROMIDE (BROMOMETHANE)	FL
EPA 8260 B	METHYL METHACRYLATE	FL
EPA 8260 B	METHYLENE CHLORIDE (DICHLOROMETHANE)	FL
EPA 8260 B	N-PROPYLBENZENE	FL
EPA 8260 B	PROPIONITRILE (ETHYL CYANIDE)	FL
EPA 8260 B	STYRENE	FL
EPA 8260 B	TERT-BUTYLBENZENE	FL
EPA 8260 B	TOLUENE	FL
EPA 8260 B	TRANS-1,3-DICHLOROPROPENE	FL
EPA 8260 B	TRICHLOROETHENE (TRICHLOROETHYLENE)	FL
EPA 8260 B	VINYL ACETATE	FL
EPA 8260 B	XYLENE (TOTAL)	FL
EPA 8270 C	1,2,4-TRICHLOROBENZENE	FL
EPA 8270 C	1,2-DIPHENYLHYDRAZINE	FL
EPA 8270 C	1,3-DICHLOROBENZENE	FL
EPA 8270 C	1,4-DICHLOROBENZENE	FL
EPA 8270 C	1,4-PHENYLENEDIAMINE	FL
EPA 8270 C	2,3,4,6-TETRACHLOROPHENOL	FL
EPA 8270 C	2,4,6-TRICHLOROPHENOL	FL
EPA 8270 C	2,4-DIMETHYLPHENOL	FL
EPA 8270 C	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 8270 C	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 8270 C	2-CHLORONAPHTHALENE	FL
EPA 8270 C	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	FL
EPA 8270 C	2-METHYLPHENOL (O-CRESOL)	FL
EPA 8270 C	2-NITROANILINE	FL
EPA 8270 C	2-PICOLINE (2-METHYLPYRIDINE)	FL

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8270 C	3,3'-DICHLOROBENZIDINE	FL
EPA 8270 C	3-METHYLCHOLANTHRENE	FL
EPA 8270 C	3-NITROANILINE	FL
EPA 8270 C	4-BROMOPHENYL PHENYL ETHER	FL
EPA 8270 C	4-CHLOROANILINE	FL
EPA 8270 C	4-DIMETHYL AMINOAZOBENZENE	FL
EPA 8270 C	4-NITROANILINE	FL
EPA 8270 C	5-NITRO-O-TOLUIDINE	FL
EPA 8270 C	A-A-DIMETHYLPHENETHYLAMINE	FL
EPA 8270 C	ACENAPHTHYLENE	FL
EPA 8270 C	ANILINE	FL
EPA 8270 C	ARAMITE	FL
EPA 8270 C	BENZO(A)ANTHRACENE	FL
EPA 8270 C	BENZO(B)FLUORANTHENE	FL
EPA 8270 C	BENZO(K)FLUORANTHENE	FL
EPA 8270 C	BENZYL ALCOHOL	FL
EPA 8270 C	BIS(2-CHLOROETHYL) ETHER	FL
EPA 8270 C	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	FL
EPA 8270 C	CHLOROBENZILATE	FL
EPA 8270 C	DI-N-BUTYL PHTHALATE	FL
EPA 8270 C	DIALLATE	FL
EPA 8270 C	DIBENZOFURAN	FL
EPA 8270 C	DIMETHOATE	FL
EPA 8270 C	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	FL
EPA 8270 C	DISULFOTON	FL
EPA 8270 C	FAMPHUR	FL
EPA 8270 C	FLUORENE	FL
EPA 8270 C	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA 8270 C	HEXACHLOROETHANE	FL
EPA 8270 C	HEXACHLOROPROPENE	FL
EPA 8270 C	INDENO(1,2,3-CD) PYRENE	FL
EPA 8270 C	ISOPHORONE	FL
EPA 8270 C	KEPONE	FL
EPA 8270 C	METHAPYRILENE	FL
EPA 8270 C	3,3'-DIMETHYLBENZIDINE	FL
EPA 8270 C	3-METHYLPHENOL (M-CRESOL)	FL
EPA 8270 C	4-AMINOBIPHENYL	FL
EPA 8270 C	4-CHLORO-3-METHYLPHENOL	FL
EPA 8270 C	4-CHLOROPHENYL PHENYLETHER	FL
EPA 8270 C	4-METHYLPHENOL (P-CRESOL)	FL
EPA 8270 C	4-NITROPHENOL	FL
EPA 8270 C	7,12-DIMETHYLBENZ(A) ANTHRACENE	FL
EPA 8270 C	ACENAPHTHENE	FL
EPA 8270 C	ACETOPHENONE	FL
EPA 8270 C	ANTHRACENE	FL
EPA 8270 C	BENZIDINE	FL
EPA 8270 C	BENZO(A)PYRENE	FL
EPA 8270 C	BENZO(G,H,I)PERYLENE	FL
EPA 8270 C	BENZOIC ACID	FL
EPA 8270 C	BIS(2-CHLOROETHOXY)METHANE	FL
EPA 8270 C	BIS(2-CHLOROISOPROPYL) ETHER	FL
EPA 8270 C	BUTYL BENZYL PHTHALATE	FL
EPA 8270 C	CHRYSENE	FL
EPA 8270 C	DI-N-OCTYL PHTHALATE	FL
EPA 8270 C	DIBENZO(A,H) ANTHRACENE	FL
EPA 8270 C	DIETHYL PHTHALATE	FL
EPA 8270 C	DIMETHYL PHTHALATE	FL
EPA 8270 C	DIPHENYLAMINE	FL
EPA 8270 C	ETHYL METHANESULFONATE	FL
EPA 8270 C	FLUORANTHENE	FL
EPA 8270 C	HEXACHLOROBENZENE	FL
EPA 8270 C	HEXACHLOROCYCLOPENTADIENE	FL
EPA 8270 C	HEXACHLOROPHENE	FL
EPA 8270 C	HEXAMETHYLPHOSPHORAMIDE (HMPA)	FL
EPA 8270 C	ISODRIN	FL
EPA 8270 C	ISOSAFROLE	FL
EPA 8270 C	MALATHION	FL
EPA 8270 C	METHYL METHANESULFONATE	FL

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8270 C	METHYL PARATHION (PARATHION, METHYL)	FL
EPA 8270 C	N-NITROSODI-N-PROPYLAMINE	FL
EPA 8270 C	N-NITROSODIMETHYLAMINE	FL
EPA 8270 C	N-NITROSOMETHYLETHYLAMINE	FL
EPA 8270 C	N-NITROSOPIPERIDINE	FL
EPA 8270 C	NAPHTHALENE	FL
EPA 8270 C	NITROQUINOLINE-1-OXIDE	FL
EPA 8270 C	O-TOLUIDINE (2-METHYLANILINE)	FL
EPA 8270 C	PENTACHLOROBENZENE	FL
EPA 8270 C	PENTACHLOROPHENOL	FL
EPA 8270 C	PHENANTHRENE	FL
EPA 8270 C	PHORATE	FL
EPA 8270 C	PYRENE	FL
EPA 8270 C	SAFROLE	FL
EPA 8270 C	TETRACHLORVINPHOS (STIROPHOS, GARDONA) Z-ISOMER	FL
EPA 8270 C	THIONAZIN (ZINOPHOS)	FL
EPA 8270 D	1,2,4,5-TETRACHLOROBENZENE	FL
EPA 8270 D	1,2-DICHLOROBENZENE	FL
EPA 8270 D	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL
EPA 8270 D	1,3-DINITROBENZENE (1,3-DNB)	FL
EPA 8270 D	1,4-NAPHTHOQUINONE	FL
EPA 8270 D	1-NAPHTHYLAMINE	FL
EPA 8270 D	2,4,5-TRICHLOROPHENOL	FL
EPA 8270 D	2,4-DICHLOROPHENOL	FL
EPA 8270 D	2,4-DINITROPHENOL	FL
EPA 8270 D	2,6-DICHLOROPHENOL	FL
EPA 8270 D	2-ACETYLAMINOFLUORENE	FL
EPA 8270 D	2-CHLOROPHENOL	FL
EPA 8270 D	2-METHYLNAPHTHALENE	FL
EPA 8270 D	2-NAPHTHYLAMINE	FL
EPA 8270 D	2-NITROPHENOL	FL
EPA 8270 D	3,3'-DICHLOROBENZIDINE	FL
EPA 8270 D	3-METHYLCHOLANTHRENE	FL
EPA 8270 D	3-NITROANILINE	FL
EPA 8270 D	4-BROMOPHENYL PHENYL ETHER	FL
EPA 8270 C	N-NITROSO-DI-N-BUTYLAMINE	FL
EPA 8270 C	N-NITROSODIETHYLAMINE	FL
EPA 8270 C	N-NITROSODIPHENYLAMINE	FL
EPA 8270 C	N-NITROSOMORPHOLINE	FL
EPA 8270 C	N-NITROSOPYRROLIDINE	FL
EPA 8270 C	NITROBENZENE	FL
EPA 8270 C	O,O,O-TRIETHYL PHOSPHOROTHIOATE	FL
EPA 8270 C	PARATHION (PARATHION - ETHYL)	FL
EPA 8270 C	PENTACHLORONITROBENZENE	FL
EPA 8270 C	PHENACETIN	FL
EPA 8270 C	PHENOL	FL
EPA 8270 C	PRONAMIDE (KERB)	FL
EPA 8270 C	PYRIDINE	FL
EPA 8270 C	SULFOTEPP (TETRAETHYL DITHIOPYROPHOSPHATE)	FL
EPA 8270 C	TETRAETHYL PYROPHOSPHATE (TEPP)	FL
EPA 8270 C - EXTENDED	CARBAZOLE	FL
EPA 8270 D	1,2,4-TRICHLOROBENZENE	FL
EPA 8270 D	1,2-DIPHENYLHYDRAZINE	FL
EPA 8270 D	1,3-DICHLOROBENZENE	FL
EPA 8270 D	1,4-DICHLOROBENZENE	FL
EPA 8270 D	1,4-PHENYLENEDIAMINE	FL
EPA 8270 D	2,3,4,6-TETRACHLOROPHENOL	FL
EPA 8270 D	2,4,6-TRICHLOROPHENOL	FL
EPA 8270 D	2,4-DIMETHYLPHENOL	FL
EPA 8270 D	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 8270 D	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 8270 D	2-CHLORONAPHTHALENE	FL
EPA 8270 D	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	FL
EPA 8270 D	2-METHYLPHENOL (O-CRESOL)	FL
EPA 8270 D	2-NITROANILINE	FL
EPA 8270 D	2-PICOLINE (2-METHYLPYRIDINE)	FL
EPA 8270 D	3,3'-DIMETHYLBENZIDINE	FL
EPA 8270 D	3-METHYLPHENOL (M-CRESOL)	FL
EPA 8270 D	4-AMINOBIPHENYL	FL
EPA 8270 D	4-CHLORO-3-METHYLPHENOL	FL

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8270 D	4-CHLOROANILINE	FL
EPA 8270 D	4-DIMETHYL AMINOAZOBENZENE	FL
EPA 8270 D	4-NITROANILINE	FL
EPA 8270 D	5-NITRO-O-TOLUIDINE	FL
EPA 8270 D	A-A-DIMETHYLPHENETHYLAMINE	FL
EPA 8270 D	ACENAPHTHYLENE	FL
EPA 8270 D	ANILINE	FL
EPA 8270 D	ARAMITE	FL
EPA 8270 D	BENZO(A)ANTHRACENE	FL
EPA 8270 D	BENZO(B)FLUORANTHENE	FL
EPA 8270 D	BENZO(K)FLUORANTHENE	FL
EPA 8270 D	BENZYL ALCOHOL	FL
EPA 8270 D	BIS(2-CHLOROETHYL) ETHER	FL
EPA 8270 D	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	FL
EPA 8270 D	CHLOROBENZILATE	FL
EPA 8270 D	DI-N-BUTYL PHTHALATE	FL
EPA 8270 D	DIALLATE	FL
EPA 8270 D	DIBENZOFURAN	FL
EPA 8270 D	DIMETHOATE	FL
EPA 8270 D	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	FL
EPA 8270 D	DISULFOTON	FL
EPA 8270 D	FAMPHUR	FL
EPA 8270 D	FLUORENE	FL
EPA 8270 D	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA 8270 D	HEXACHLOROETHANE	FL
EPA 8270 D	HEXACHLOROPROPENE	FL
EPA 8270 D	INDENO(1,2,3-CD) PYRENE	FL
EPA 8270 D	ISOPHORONE	FL
EPA 8270 D	KEPONE	FL
EPA 8270 D	METHAPYRILENE	FL
EPA 8270 D	METHYL PARATHION (PARATHION, METHYL)	FL
EPA 8270 D	N-NITROSODI-N-PROPYLAMINE	FL
EPA 8270 D	N-NITROSODIMETHYLAMINE	FL
EPA 8270 D	N-NITROSOMETHYLETHYLAMINE	FL
EPA 8270 D	4-CHLOROPHENYL PHENYLETHER	FL
EPA 8270 D	4-METHYLPHENOL (P-CRESOL)	FL
EPA 8270 D	4-NITROPHENOL	FL
EPA 8270 D	7,12-DIMETHYLBENZ(A) ANTHRACENE	FL
EPA 8270 D	ACENAPHTHENE	FL
EPA 8270 D	ACETOPHENONE	FL
EPA 8270 D	ANTHRACENE	FL
EPA 8270 D	BENZIDINE	FL
EPA 8270 D	BENZO(A)PYRENE	FL
EPA 8270 D	BENZO(G,H,I)PERYLENE	FL
EPA 8270 D	BENZOIC ACID	FL
EPA 8270 D	BIS(2-CHLOROETHOXY)METHANE	FL
EPA 8270 D	BIS(2-CHLOROISOPROPYL) ETHER	FL
EPA 8270 D	BUTYL BENZYL PHTHALATE	FL
EPA 8270 D	CHRYSENE	FL
EPA 8270 D	DI-N-OCTYL PHTHALATE	FL
EPA 8270 D	DIBENZO(A,H) ANTHRACENE	FL
EPA 8270 D	DIETHYL PHTHALATE	FL
EPA 8270 D	DIMETHYL PHTHALATE	FL
EPA 8270 D	DIPHENYLAMINE	FL
EPA 8270 D	ETHYL METHANESULFONATE	FL
EPA 8270 D	FLUORANTHENE	FL
EPA 8270 D	HEXACHLOROBENZENE	FL
EPA 8270 D	HEXACHLOROCYCLOPENTADIENE	FL
EPA 8270 D	HEXACHLOROPHENE	FL
EPA 8270 D	HEXAMETHYLPHOSPHORAMIDE (HMPA)	FL
EPA 8270 D	ISODRIN	FL
EPA 8270 D	ISOSAFROLE	FL
EPA 8270 D	MALATHION	FL
EPA 8270 D	METHYL METHANESULFONATE	FL
EPA 8270 D	N-NITROSO-DI-N-BUTYLAMINE	FL
EPA 8270 D	N-NITROSODIETHYLAMINE	FL
EPA 8270 D	N-NITROSODIPHENYLAMINE	FL
EPA 8270 D	N-NITROSOMORPHOLINE	FL

Scope of Accreditation

VELAP Certificate No.: 6338

Microbac Laboratories, Inc.
158 Starlite Drive
Marietta, OH 45750

Virginia Laboratory ID: 460187
Effective Date: September 15, 2014
Expiration Date: September 14, 2015

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8270 D	N-NITROSOPIPERIDINE	FL
EPA 8270 D	NAPHTHALENE	FL
EPA 8270 D	NITROQUINOLINE-1-OXIDE	FL
EPA 8270 D	O-TOLUIDINE (2-METHYLANILINE)	FL
EPA 8270 D	PENTACHLOROBENZENE	FL
EPA 8270 D	PENTACHLOROPHENOL	FL
EPA 8270 D	PHENANTHRENE	FL
EPA 8270 D	PHORATE	FL
EPA 8270 D	PYRENE	FL
EPA 8270 D	SULFOTEPP (TETRAETHYL DITHIOPYROPHOSPHATE)	FL
EPA 8270 D	TETRAETHYL PYROPHOSPHATE (TEPP)	FL
EPA 8270 D - EXTENDED	CARBAZOLE	FL
EPA 8270 D SIM	DIMETHOATE	FL
EPA 8270 D SIM	FAMPHUR	FL
EPA 8270 D SIM	METHYL PARATHION (PARATHION, METHYL)	FL
EPA 8315 A	FORMALDEHYDE	FL
EPA 8330 A	1,3-DINITROBENZENE (1,3-DNB)	FL
EPA 8330 A	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 8330 A	2-AMINO-4,6-DINITROTOLUENE (2-AM-DNT)	FL
EPA 8330 A	3-NITROTOLUENE	FL
EPA 8330 A	4-NITROTOLUENE	FL
EPA 8330 A	NITROBENZENE	FL
EPA 8330 A	OCTAHYDRO-1,3,5,7-TETRANITRO-1 ,3,5,7-TETRAZOCINE (HMX)	FL
EPA 8330 B	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL
EPA 8330 B	2,4,6-TRINITROTOLUENE (2,4,6-TNT)	FL
EPA 8330 B	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 8330 B	2-NITROTOLUENE	FL
EPA 8330 B	4-AMINO-2,6-DINITROTOLUENE (4-AM-DNT)	FL
EPA 8330 B	METHYL-2,4,6-TRINITROPHENYLNIT RAMINE (TETRYL)	FL
EPA 8330 B	NITROGLYCERIN	FL

METHOD	ANALYTE	PRIMARY
EPA 8270 D	N-NITROSOPYRROLIDINE	FL
EPA 8270 D	NITROBENZENE	FL
EPA 8270 D	O,O,O-TRIETHYL PHOSPHOROTHIOATE	FL
EPA 8270 D	PARATHION (PARATHION - ETHYL)	FL
EPA 8270 D	PENTACHLORONITROBENZENE	FL
EPA 8270 D	PHENACETIN	FL
EPA 8270 D	PHENOL	FL
EPA 8270 D	PRONAMIDE (KERB)	FL
EPA 8270 D	SAFROLE	FL
EPA 8270 D	TETRACHLORVINPHOS (STIROPHOS, GARDONA) Z-ISOMER	FL
EPA 8270 D	THIONAZIN (ZINOPHOS)	FL
EPA 8270 D SIM	DIALLATE	FL
EPA 8270 D SIM	DISULFOTON	FL
EPA 8270 D SIM	KEPONE	FL
EPA 8270 D SIM	PHORATE	FL
EPA 8330 A	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL
EPA 8330 A	2,4,6-TRINITROTOLUENE (2,4,6-TNT)	FL
EPA 8330 A	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 8330 A	2-NITROTOLUENE	FL
EPA 8330 A	4-AMINO-2,6-DINITROTOLUENE (4-AM-DNT)	FL
EPA 8330 A	METHYL-2,4,6-TRINITROPHENYLNIT RAMINE (TETRYL)	FL
EPA 8330 A	NITROGLYCERIN	FL
EPA 8330 A	RDX (HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE)	FL
EPA 8330 B	1,3-DINITROBENZENE (1,3-DNB)	FL
EPA 8330 B	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 8330 B	2-AMINO-4,6-DINITROTOLUENE (2-AM-DNT)	FL
EPA 8330 B	3-NITROTOLUENE	FL
EPA 8330 B	4-NITROTOLUENE	FL
EPA 8330 B	NITROBENZENE	FL
EPA 8330 B	OCTAHYDRO-1,3,5,7-TETRANITRO-1 ,3,5,7-TETRAZOCINE (HMX)	FL

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 6338

Microbac Laboratories, Inc.
158 Starlite Drive
Marietta, OH 45750

Virginia Laboratory ID: 460187
Effective Date: September 15, 2014
Expiration Date: September 14, 2015

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8330 B	PENTAERYTHRITOLTETRANITRATE	FL
EPA 8330 B	RDX (HEXAHYDRO-1,3,5-TRINITRO-1,3,5-TRIAZINE)	FL
EPA 9010 B	CYANIDE	FL
EPA 9014	CYANIDE	FL
EPA 9030 B	PREP: SULFIDE	FL
EPA 9034	TOTAL SULFIDES	FL
EPA 9040 C	PH	FL
EPA 9045 D	PH	FL
EPA 9056	BROMIDE	FL
EPA 9056	CHLORIDE	FL
EPA 9056	FLUORIDE	FL
EPA 9056	NITRITE	FL
EPA 9056	SULFATE	FL
EPA 9056 A	BROMIDE	FL
EPA 9056 A	CHLORIDE	FL
EPA 9056 A	FLUORIDE	FL
EPA 9056 A	NITRATE AS N	FL
EPA 9056 A	NITRITE	FL
EPA 9056 A	SULFATE	FL
EPA 9095 B	FREE LIQUID	FL

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF GENERAL SERVICES
DIVISION OF CONSOLIDATED LABORATORY SERVICES

Certifies that

VA Laboratory ID#: 460175
Testamerica Laboratories, Inc.

4101 Shuffel Street Nw
North Canton, OH 44720

Owner: TESTAMERICA HOLDINGS, INC.
Operator: RACHEL BRYDON JANNETTA
Responsible Official: DANIEL PITTMAN

Having met the requirements of 1 VAC 30-46
and the National Environmental Laboratory Accreditation Conference 2003 Standard
is hereby approved as an

Accredited Laboratory

As more fully described in the attached Scope of Accreditation

Effective Date: **September 15, 2014**
Expiration Date: **September 14, 2015**
Certificate # 6440

Denise M. Toney

Denise M. Toney, Ph.D., HCLD
DGS Deputy Director for Laboratories

Continued accreditation status depends on successful ongoing participation in the program.
Certificate to be conspicuously displayed at the laboratory.
Not valid unless accompanied by a valid Virginia Environmental Laboratory Accreditation Program (VELAP) Scope of Accreditation.
Customers are urged to verify the laboratory's current accreditation status.

Certificate Not Transferable

Surrender Upon Revocation

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 6440

Testamerica Laboratories, Inc.
4101 Shuffel Street Nw
North Canton, OH 44720

Virginia Laboratory ID: 460175
Effective Date: September 15, 2014
Expiration Date: September 14, 2015

NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 1010	FLASHPOINT	FL	EPA 120.1	CONDUCTIVITY	FL
EPA 1631 E	MERCURY	FL	EPA 1664 A	OIL AND GREASE (AS HEM)	FL
EPA 1664 A	TOTAL PETROLEUM HYDROCARBONS (TPH) (AS NONPOLAR MATERIAL, SGT-HEM)	FL	EPA 180.1 (AS HACH 8195)	TURBIDITY	FL
EPA 200.7 REV 4.4	ALUMINUM	FL	EPA 200.7 REV 4.4	ANTIMONY	FL
EPA 200.7 REV 4.4	ARSENIC	FL	EPA 200.7 REV 4.4	BARIUM	FL
EPA 200.7 REV 4.4	BERYLLIUM	FL	EPA 200.7 REV 4.4	BORON	FL
EPA 200.7 REV 4.4	CADMIUM	FL	EPA 200.7 REV 4.4	CALCIUM	FL
EPA 200.7 REV 4.4	CHROMIUM	FL	EPA 200.7 REV 4.4	COBALT	FL
EPA 200.7 REV 4.4	COPPER	FL	EPA 200.7 REV 4.4	IRON	FL
EPA 200.7 REV 4.4	LEAD	FL	EPA 200.7 REV 4.4	MAGNESIUM	FL
EPA 200.7 REV 4.4	MANGANESE	FL	EPA 200.7 REV 4.4	MOLYBDENUM	FL
EPA 200.7 REV 4.4	NICKEL	FL	EPA 200.7 REV 4.4	POTASSIUM	FL
EPA 200.7 REV 4.4	SELENIUM	FL	EPA 200.7 REV 4.4	SILVER	FL
EPA 200.7 REV 4.4	SODIUM	FL	EPA 200.7 REV 4.4	THALLIUM	FL
EPA 200.7 REV 4.4	TIN	FL	EPA 200.7 REV 4.4	TITANIUM	FL
EPA 200.7 REV 4.4	VANADIUM	FL	EPA 200.7 REV 4.4	ZINC	FL
EPA 200.8 REV 5.4	ALUMINUM	FL	EPA 200.8 REV 5.4	ANTIMONY	FL
EPA 200.8 REV 5.4	ARSENIC	FL	EPA 200.8 REV 5.4	BARIUM	FL
EPA 200.8 REV 5.4	BERYLLIUM	FL	EPA 200.8 REV 5.4	CADMIUM	FL
EPA 200.8 REV 5.4	CHROMIUM	FL	EPA 200.8 REV 5.4	COBALT	FL
EPA 200.8 REV 5.4	COPPER	FL	EPA 200.8 REV 5.4	LEAD	FL
EPA 200.8 REV 5.4	MANGANESE	FL	EPA 200.8 REV 5.4	MOLYBDENUM	FL
EPA 200.8 REV 5.4	NICKEL	FL	EPA 200.8 REV 5.4	SELENIUM	FL
EPA 200.8 REV 5.4	SILVER	FL	EPA 200.8 REV 5.4	THALLIUM	FL
EPA 200.8 REV 5.4	VANADIUM	FL	EPA 200.8 REV 5.4	ZINC	FL
EPA 200.8 REV 5.4 - EXTENDED	TIN	FL	EPA 245.1 REV 3	MERCURY	FL
EPA 300.0 REV 2.1	BROMIDE	FL	EPA 300.0 REV 2.1	CHLORIDE	FL
EPA 300.0 REV 2.1	FLUORIDE	FL	EPA 300.0 REV 2.1	NITRATE AS N	FL
EPA 300.0 REV 2.1	NITRITE AS N	FL	EPA 300.0 REV 2.1	ORTHOPHOSPHATE AS P	FL
EPA 300.0 REV 2.1	SULFATE	FL	EPA 335.4 REV 1.0	CYANIDE	FL
EPA 365.1 REV 2	ORTHOPHOSPHATE AS P	FL	EPA 365.1 REV 2	PHOSPHORUS, TOTAL	FL
EPA 410.4 REV 2	CHEMICAL OXYGEN DEMAND	FL	EPA 420.1 (AS HACH 8047)	TOTAL PHENOLICS	FL
EPA 6010 B	ALUMINUM	FL	EPA 6010 B	ANTIMONY	FL
EPA 6010 B	ARSENIC	FL	EPA 6010 B	BARIUM	FL
EPA 6010 B	BERYLLIUM	FL	EPA 6010 B	BORON	FL

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 6440

Testamerica Laboratories, Inc.
4101 Shuffel Street Nw
North Canton, OH 44720

Virginia Laboratory ID: 460175
Effective Date: September 15, 2014
Expiration Date: September 14, 2015

NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 6010 B	CADMIUM	FL	EPA 6010 B	CALCIUM	FL
EPA 6010 B	CHROMIUM	FL	EPA 6010 B	COBALT	FL
EPA 6010 B	COPPER	FL	EPA 6010 B	IRON	FL
EPA 6010 B	LEAD	FL	EPA 6010 B	LITHIUM	FL
EPA 6010 B	MAGNESIUM	FL	EPA 6010 B	MANGANESE	FL
EPA 6010 B	MOLYBDENUM	FL	EPA 6010 B	NICKEL	FL
EPA 6010 B	POTASSIUM	FL	EPA 6010 B	SELENIUM	FL
EPA 6010 B	SILVER	FL	EPA 6010 B	SODIUM	FL
EPA 6010 B	THALLIUM	FL	EPA 6010 B	TIN	FL
EPA 6010 B	TITANIUM	FL	EPA 6010 B	VANADIUM	FL
EPA 6010 B	ZINC	FL	EPA 6010 B - EXTENDED	SILICON	FL
EPA 6010 C	ALUMINUM	FL	EPA 6010 C	ANTIMONY	FL
EPA 6010 C	ARSENIC	FL	EPA 6010 C	BARIUM	FL
EPA 6010 C	BERYLLIUM	FL	EPA 6010 C	BORON	FL
EPA 6010 C	CADMIUM	FL	EPA 6010 C	CALCIUM	FL
EPA 6010 C	CHROMIUM	FL	EPA 6010 C	COBALT	FL
EPA 6010 C	COPPER	FL	EPA 6010 C	IRON	FL
EPA 6010 C	LEAD	FL	EPA 6010 C	LITHIUM	FL
EPA 6010 C	MAGNESIUM	FL	EPA 6010 C	MANGANESE	FL
EPA 6010 C	MOLYBDENUM	FL	EPA 6010 C	NICKEL	FL
EPA 6010 C	POTASSIUM	FL	EPA 6010 C	SELENIUM	FL
EPA 6010 C	SILVER	FL	EPA 6010 C	SODIUM	FL
EPA 6010 C	THALLIUM	FL	EPA 6010 C	TIN	FL
EPA 6010 C	TITANIUM	FL	EPA 6010 C	VANADIUM	FL
EPA 6010 C	ZINC	FL	EPA 6010 C - EXTENDED	SILICON	FL
EPA 6020	ALUMINUM	FL	EPA 6020	ANTIMONY	FL
EPA 6020	ARSENIC	FL	EPA 6020	BARIUM	FL
EPA 6020	BERYLLIUM	FL	EPA 6020	CADMIUM	FL
EPA 6020	CHROMIUM	FL	EPA 6020	COBALT	FL
EPA 6020	COPPER	FL	EPA 6020	LEAD	FL
EPA 6020	MANGANESE	FL	EPA 6020	NICKEL	FL
EPA 6020	SILVER	FL	EPA 6020	THALLIUM	FL
EPA 6020	ZINC	FL	EPA 6020 - EXTENDED	BORON	FL
EPA 6020 - EXTENDED	CALCIUM	FL	EPA 6020 - EXTENDED	IRON	FL
EPA 6020 - EXTENDED	MAGNESIUM	FL	EPA 6020 - EXTENDED	MOLYBDENUM	FL
EPA 6020 - EXTENDED	POTASSIUM	FL	EPA 6020 - EXTENDED	SELENIUM	FL
EPA 6020 - EXTENDED	SODIUM	FL	EPA 6020 - EXTENDED	STRONTIUM	FL
EPA 6020 - EXTENDED	TIN	FL	EPA 6020 - EXTENDED	TITANIUM	FL

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 6020 - EXTENDED	VANADIUM	FL	EPA 6020 A	ALUMINUM	FL
EPA 6020 A	ANTIMONY	FL	EPA 6020 A	ARSENIC	FL
EPA 6020 A	BARIUM	FL	EPA 6020 A	BERYLLIUM	FL
EPA 6020 A	CADMIUM	FL	EPA 6020 A	CALCIUM	FL
EPA 6020 A	CHROMIUM	FL	EPA 6020 A	COBALT	FL
EPA 6020 A	COPPER	FL	EPA 6020 A	IRON	FL
EPA 6020 A	LEAD	FL	EPA 6020 A	MAGNESIUM	FL
EPA 6020 A	MANGANESE	FL	EPA 6020 A	NICKEL	FL
EPA 6020 A	POTASSIUM	FL	EPA 6020 A	SELENIUM	FL
EPA 6020 A	SILVER	FL	EPA 6020 A	SODIUM	FL
EPA 6020 A	THALLIUM	FL	EPA 6020 A	VANADIUM	FL
EPA 6020 A	ZINC	FL	EPA 6020 A - EXTENDED	BORON	FL
EPA 6020 A - EXTENDED	MOLYBDENUM	FL	EPA 6020 A - EXTENDED	STRONTIUM	FL
EPA 6020 A - EXTENDED	TIN	FL	EPA 6020 A - EXTENDED	TITANIUM	FL
EPA 608	4,4'-DDD	FL	EPA 608	4,4'-DDE	FL
EPA 608	4,4'-DDT	FL	EPA 608	ALDRIN	FL
EPA 608	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	FL	EPA 608	AROCLOR-1016 (PCB-1016)	FL
EPA 608	AROCLOR-1221 (PCB-1221)	FL	EPA 608	AROCLOR-1232 (PCB-1232)	FL
EPA 608	AROCLOR-1242 (PCB-1242)	FL	EPA 608	AROCLOR-1248 (PCB-1248)	FL
EPA 608	AROCLOR-1254 (PCB-1254)	FL	EPA 608	AROCLOR-1260 (PCB-1260)	FL
EPA 608	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	FL	EPA 608	CHLORDANE (TECH.)	FL
EPA 608	DELTA-BHC	FL	EPA 608	DIELDRIN	FL
EPA 608	ENDOSULFAN I	FL	EPA 608	ENDOSULFAN II	FL
EPA 608	ENDOSULFAN SULFATE	FL	EPA 608	ENDRIN	FL
EPA 608	ENDRIN ALDEHYDE	FL	EPA 608	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	FL
EPA 608	HEPTACHLOR	FL	EPA 608	HEPTACHLOR EPOXIDE	FL
EPA 608	TOXAPHENE (CHLORINATED CAMPHENE)	FL	EPA 624	1,1,1-TRICHLOROETHANE	FL
EPA 624	1,1,2,2-TETRACHLOROETHANE	FL	EPA 624	1,1,2-TRICHLOROETHANE	FL
EPA 624	1,1-DICHLOROETHANE	FL	EPA 624	1,2-DICHLOROBENZENE	FL
EPA 624	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	FL	EPA 624	1,2-DICHLOROPROPANE	FL
EPA 624	1,3-DICHLOROBENZENE	FL	EPA 624	1,4-DICHLOROBENZENE	FL
EPA 624	2-CHLOROETHYL VINYL ETHER	FL	EPA 624	ACROLEIN (PROPENAL)	FL
EPA 624	ACRYLONITRILE	FL	EPA 624	BENZENE	FL
EPA 624	BROMODICHLOROMETHANE	FL			

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 624	BROMOFORM	FL	EPA 624	CARBON TETRACHLORIDE	FL
EPA 624	CHLOROBENZENE	FL	EPA 624	CHLORODIBROMOMETHANE	FL
EPA 624	CHLOROETHANE (ETHYL CHLORIDE)	FL	EPA 624	CHLOROFORM	FL
EPA 624	CIS-1,3-DICHLOROPROPENE	FL	EPA 624	ETHYLBENZENE	FL
EPA 624	METHYL BROMIDE (BROMOMETHANE)	FL	EPA 624	METHYL CHLORIDE (CHLOROMETHANE)	FL
EPA 624	METHYLENE CHLORIDE (DICHLOROMETHANE)	FL	EPA 624	TETRACHLOROETHENE (PERCHLOROETHENE)	FL
EPA 624	TOLUENE	FL	EPA 624	TRANS-1,2-DICHLOROETHENE	FL
EPA 624	TRANS-1,3-DICHLOROPROPENE	FL	EPA 624	TRICHLOROETHENE (TRICHLOROETHYLENE)	FL
EPA 624	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	FL	EPA 624	VINYL CHLORIDE	FL
EPA 624 - EXTENDED	1,1-DICHLOROETHYLENE	FL	EPA 624 - EXTENDED	XYLENE (TOTAL)	FL
EPA 625	1,2,4-TRICHLOROBENZENE	FL	EPA 625	2,4,6-TRICHLOROPHENOL	FL
EPA 625	2,4-DICHLOROPHENOL	FL	EPA 625	2,4-DIMETHYLPHENOL	FL
EPA 625	2,4-DINITROPHENOL	FL	EPA 625	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 625	2,6-DINITROTOLUENE (2,6-DNT)	FL	EPA 625	2-CHLORONAPHTHALENE	FL
EPA 625	2-CHLOROPHENOL	FL	EPA 625	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	FL
EPA 625	2-METHYLPHENOL (O-CRESOL)	FL	EPA 625	2-NITROPHENOL	FL
EPA 625	3,3'-DICHLOROBENZIDINE	FL	EPA 625	4-BROMOPHENYL PHENYL ETHER	FL
EPA 625	4-CHLORO-3-METHYLPHENOL	FL	EPA 625	4-CHLOROPHENYL PHENYLETHER	FL
EPA 625	4-NITROPHENOL	FL	EPA 625	ACENAPHTHENE	FL
EPA 625	ACENAPHTHYLENE	FL	EPA 625	ANTHRACENE	FL
EPA 625	BENZIDINE	FL	EPA 625	BENZO(A)ANTHRACENE	FL
EPA 625	BENZO(A)PYRENE	FL	EPA 625	BENZO(B)FLUORANTHENE	FL
EPA 625	BENZO(G,H,I)PERYLENE	FL	EPA 625	BENZO(K)FLUORANTHENE	FL
EPA 625	BIS(2-CHLOROETHOXY)METHANE	FL	EPA 625	BIS(2-CHLOROETHYL) ETHER	FL
EPA 625	BIS(2-CHLOROISOPROPYL) ETHER	FL	EPA 625	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	FL
EPA 625	BUTYL BENZYL PHTHALATE	FL	EPA 625	CHRYSENE	FL
EPA 625	DI-N-BUTYL PHTHALATE	FL	EPA 625	DI-N-OCTYL PHTHALATE	FL
EPA 625	DIBENZO(A,H) ANTHRACENE	FL	EPA 625	DIETHYL PHTHALATE	FL
EPA 625	DIMETHYL PHTHALATE	FL	EPA 625	FLUORANTHENE	FL
EPA 625	FLUORENE	FL	EPA 625	HEXACHLOROBENZENE	FL
EPA 625	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL	EPA 625	HEXACHLOROCYCLOPENTADIENE	FL
EPA 625	HEXACHLOROETHANE	FL	EPA 625	INDENO(1,2,3-CD) PYRENE	FL
EPA 625	ISOPHORONE	FL	EPA 625	N-NITROSODI-N-PROPYLAMINE	FL

Commonwealth of Virginia

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Virginia Laboratory ID: 460175
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Expiration Date: September 14, 2015

NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 625	N-NITROSODIMETHYLAMINE	FL	EPA 625	N-NITROSODIPHENYLAMINE	FL
EPA 625	NAPHTHALENE	FL	EPA 625	NITROBENZENE	FL
EPA 625	PENTACHLOROPHENOL	FL	EPA 625	PHENANTHRENE	FL
EPA 625	PHENOL	FL	EPA 625	PYRENE	FL
EPA 625 - EXTENDED	ACETOPHENONE	FL	EPA 625 - EXTENDED	ANILINE	FL
EPA 625 - EXTENDED	CARBAZOLE	FL	EPA 7196 A	CHROMIUM VI	FL
EPA 7470 A	MERCURY	FL	EPA 8011	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	FL
EPA 8011	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	FL	EPA 8015 B	DIESEL RANGE ORGANICS (DRO)	FL
EPA 8015 B	GASOLINE RANGE ORGANICS (GRO)	FL	EPA 8015 C	DIESEL RANGE ORGANICS (DRO)	FL
EPA 8015 C	GASOLINE RANGE ORGANICS (GRO)	FL	EPA 8081 A	4,4'-DDD	FL
EPA 8081 A	4,4'-DDE	FL	EPA 8081 A	4,4'-DDT	FL
EPA 8081 A	ALDRIN	FL	EPA 8081 A	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 A	ALPHA-CHLORDANE [CIS-CHLORDANE]	FL	EPA 8081 A	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 A	CHLORDANE (TECH.)	FL	EPA 8081 A	CHLOROBENZILATE	FL
EPA 8081 A	DELTA-BHC	FL	EPA 8081 A	DIALLATE	FL
EPA 8081 A	DIELDRIN	FL	EPA 8081 A	ENDOSULFAN I	FL
EPA 8081 A	ENDOSULFAN II	FL	EPA 8081 A	ENDOSULFAN SULFATE	FL
EPA 8081 A	ENDRIN	FL	EPA 8081 A	ENDRIN ALDEHYDE	FL
EPA 8081 A	ENDRIN KETONE	FL	EPA 8081 A	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 A	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	FL	EPA 8081 A	HEPTACHLOR	FL
EPA 8081 A	HEPTACHLOR EPOXIDE	FL	EPA 8081 A	ISODRIN	FL
EPA 8081 A	METHOXYCHLOR	FL	EPA 8081 A	TOXAPHENE (CHLORINATED CAMPHENE)	FL
EPA 8081 B	4,4'-DDD	FL	EPA 8081 B	4,4'-DDE	FL
EPA 8081 B	4,4'-DDT	FL	EPA 8081 B	ALDRIN	FL
EPA 8081 B	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	FL	EPA 8081 B	ALPHA-CHLORDANE [CIS-CHLORDANE]	FL
EPA 8081 B	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	FL	EPA 8081 B	CHLORDANE (TECH.)	FL
EPA 8081 B	CHLOROBENZILATE	FL	EPA 8081 B	DELTA-BHC	FL
EPA 8081 B	DIALLATE	FL	EPA 8081 B	DIELDRIN	FL

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EPA 8081 B	ENDOSULFAN I	FL	EPA 8081 B	ENDOSULFAN II	FL
EPA 8081 B	ENDOSULFAN SULFATE	FL	EPA 8081 B	ENDRIN	FL
EPA 8081 B	ENDRIN ALDEHYDE	FL	EPA 8081 B	ENDRIN KETONE	FL
EPA 8081 B	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	FL	EPA 8081 B	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	FL
EPA 8081 B	HEPTACHLOR	FL	EPA 8081 B	HEPTACHLOR EPOXIDE	FL
EPA 8081 B	ISODRIN	FL	EPA 8081 B	METHOXYCHLOR	FL
EPA 8081 B	TOXAPHENE (CHLORINATED CAMPHENE)	FL	EPA 8081 B - EXTENDED	KEPONE	FL
EPA 8082 - EXTENDED	AROCLOR-1262 (PCB-1262)	FL	EPA 8082 - EXTENDED	AROCLOR-1268 (PCB-1268)	FL
EPA 8082 A	AROCLOR-1016 (PCB-1016)	FL	EPA 8082 A	AROCLOR-1221 (PCB-1221)	FL
EPA 8082 A	AROCLOR-1232 (PCB-1232)	FL	EPA 8082 A	AROCLOR-1242 (PCB-1242)	FL
EPA 8082 A	AROCLOR-1248 (PCB-1248)	FL	EPA 8082 A	AROCLOR-1254 (PCB-1254)	FL
EPA 8082 A	AROCLOR-1260 (PCB-1260)	FL	EPA 8082 A - EXTENDED	AROCLOR-1262 (PCB-1262)	FL
EPA 8082 A - EXTENDED	AROCLOR-1268 (PCB-1268)	FL	EPA 8151 A	2,4,5-T	FL
EPA 8151 A	2,4-D	FL	EPA 8151 A	2,4-DB	FL
EPA 8151 A	DALAPON	FL	EPA 8151 A	DICAMBA	FL
EPA 8151 A	DICHLOROPROP (DICHLORPROP)	FL	EPA 8151 A	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	FL
EPA 8151 A	MCPA	FL	EPA 8151 A	MCPP	FL
EPA 8151 A	SILVEX (2,4,5-TP)	FL	EPA 8260 B	1,1,1,2-TETRACHLOROETHANE	FL
EPA 8260 B	1,1,1-TRICHLOROETHANE	FL	EPA 8260 B	1,1,2,2-TETRACHLOROETHANE	FL
EPA 8260 B	1,1,2-TRICHLOROETHANE	FL	EPA 8260 B	1,1-DICHLOROETHANE	FL
EPA 8260 B	1,1-DICHLOROETHYLENE	FL	EPA 8260 B	1,1-DICHLOROPROPENE	FL
EPA 8260 B	1,2,3-TRICHLOROBENZENE	FL	EPA 8260 B	1,2,3-TRICHLOROPROPANE	FL
EPA 8260 B	1,2,4-TRICHLOROBENZENE	FL	EPA 8260 B	1,2,4-TRIMETHYLBENZENE	FL
EPA 8260 B	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	FL	EPA 8260 B	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	FL
EPA 8260 B	1,2-DICHLOROBENZENE	FL	EPA 8260 B	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	FL
EPA 8260 B	1,2-DICHLOROPROPANE	FL	EPA 8260 B	1,3,5-TRIMETHYLBENZENE	FL
EPA 8260 B	1,3-DICHLOROBENZENE	FL	EPA 8260 B	1,3-DICHLOROPROPANE	FL
EPA 8260 B	1,4-DICHLOROBENZENE	FL	EPA 8260 B	1,4-DIOXANE (1,4-DIETHYLENEOXIDE)	FL
EPA 8260 B	1-BUTANOL (N-BUTANOL)	FL	EPA 8260 B	2,2-DICHLOROPROPANE	FL
EPA 8260 B	2-BUTANONE (METHYL ETHYL KETONE, MEK)	FL	EPA 8260 B	2-CHLOROETHYL VINYL ETHER	FL
EPA 8260 B	2-CHLOROTOLUENE	FL	EPA 8260 B	2-HEXANONE	FL
EPA 8260 B	2-NITROPROPANE	FL	EPA 8260 B	4-CHLOROTOLUENE	FL
EPA 8260 B	4-ISOPROPYLTOLUENE (P-CYMENE)	FL	EPA 8260 B	4-METHYL-2-PENTANONE (MIBK)	FL

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8260 B	ACETONE	FL	EPA 8260 B	ACETONITRILE	FL
EPA 8260 B	ACROLEIN (PROPENAL)	FL	EPA 8260 B	ACRYLONITRILE	FL
EPA 8260 B	ALLYL CHLORIDE (3-CHLOROPROPENE)	FL	EPA 8260 B	BENZENE	FL
EPA 8260 B	BROMOBENZENE	FL	EPA 8260 B	BROMOCHLOROMETHANE	FL
EPA 8260 B	BROMODICHLOROMETHANE	FL	EPA 8260 B	BROMOFORM	FL
EPA 8260 B	CARBON DISULFIDE	FL	EPA 8260 B	CARBON TETRACHLORIDE	FL
EPA 8260 B	CHLOROBENZENE	FL	EPA 8260 B	CHLORODIBROMOMETHANE	FL
EPA 8260 B	CHLOROETHANE (ETHYL CHLORIDE)	FL	EPA 8260 B	CHLOROFORM	FL
EPA 8260 B	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	FL	EPA 8260 B	CIS-1,2-DICHLOROETHYLENE	FL
EPA 8260 B	CIS-1,3-DICHLOROPROPENE	FL	EPA 8260 B	DIBROMOMETHANE (METHYLENE BROMIDE)	FL
EPA 8260 B	DICHLORODIFLUOROMETHANE (FREON-12)	FL	EPA 8260 B	DIETHYL ETHER	FL
EPA 8260 B	ETHYL ACETATE	FL	EPA 8260 B	ETHYL METHACRYLATE	FL
EPA 8260 B	ETHYLBENZENE	FL	EPA 8260 B	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA 8260 B	IODOMETHANE (METHYL IODIDE)	FL	EPA 8260 B	ISOBUTYL ALCOHOL (2-METHYL-1-PROPANOL)	FL
EPA 8260 B	ISOPROPYLBENZENE	FL	EPA 8260 B	METHACRYLONITRILE	FL
EPA 8260 B	METHYL BROMIDE (BROMOMETHANE)	FL	EPA 8260 B	METHYL CHLORIDE (CHLOROMETHANE)	FL
EPA 8260 B	METHYL METHACRYLATE	FL	EPA 8260 B	METHYL TERT-BUTYL ETHER (MTBE)	FL
EPA 8260 B	METHYLENE CHLORIDE (DICHLOROMETHANE)	FL	EPA 8260 B	N-BUTYLBENZENE	FL
EPA 8260 B	N-PROPYLBENZENE	FL	EPA 8260 B	NAPHTHALENE	FL
EPA 8260 B	PROPIONITRILE (ETHYL CYANIDE)	FL	EPA 8260 B	SEC-BUTYLBENZENE	FL
EPA 8260 B	STYRENE	FL	EPA 8260 B	TERT-BUTYL ALCOHOL	FL
EPA 8260 B	TERT-BUTYLBENZENE	FL	EPA 8260 B	TETRACHLOROETHENE (PERCHLOROETHENE)	FL
EPA 8260 B	TOLUENE	FL	EPA 8260 B	TRANS-1,2-DICHLOROETHENE	FL
EPA 8260 B	TRANS-1,3-DICHLOROPROPENE	FL	EPA 8260 B	TRANS-1,4-DICHLORO-2-BUTENE	FL
EPA 8260 B	TRICHLOROETHENE (TRICHLOROETHYLENE)	FL	EPA 8260 B	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	FL
EPA 8260 B	VINYL ACETATE	FL	EPA 8260 B	VINYL CHLORIDE	FL
EPA 8260 B	XYLENE (TOTAL)	FL	EPA 8260 B - EXTENDED	1,1,2-TRICHLORO-1,2,2-TRIFLUORO ETHANE (FREON 113)	FL
EPA 8260 B - EXTENDED	CYCLOHEXANE	FL	EPA 8260 B - EXTENDED	CYCLOHEXANONE	FL
EPA 8260 B - EXTENDED	DI-ISOPROPYLETHER (DIPE, ISOPROPYL ETHER)	FL	EPA 8260 B - EXTENDED	DICHLOROFLUOROMETHANE (FREON 21)	FL
EPA 8260 B - EXTENDED	METHYL ACETATE	FL	EPA 8260 B - EXTENDED	METHYLCYCLOHEXANE	FL

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8260 B - EXTENDED	N-HEPTANE	FL
EPA 8260 B - EXTENDED	TETRAHYDROFURAN (THF)	FL
EPA 8260 C	1,1,1-TRICHLOROETHANE	FL
EPA 8260 C	1,1,2-TRICHLOROETHANE	FL
EPA 8260 C	1,1-DICHLOROETHYLENE	FL
EPA 8260 C	1,2,3-TRICHLOROBENZENE	FL
EPA 8260 C	1,2,4-TRIMETHYLBENZENE	FL
EPA 8260 C	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	FL
EPA 8260 C	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	FL
EPA 8260 C	1,3,5-TRIMETHYLBENZENE	FL
EPA 8260 C	1,3-DICHLOROPROPANE	FL
EPA 8260 C	1,4-DIOXANE (1,4-DIETHYLENEOXIDE)	FL
EPA 8260 C	2,2-DICHLOROPROPANE	FL
EPA 8260 C	2-CHLOROETHYL VINYL ETHER	FL
EPA 8260 C	2-HEXANONE	FL
EPA 8260 C	4-CHLOROTOLUENE	FL
EPA 8260 C	4-METHYL-2-PENTANONE (MIBK)	FL
EPA 8260 C	ACETONITRILE	FL
EPA 8260 C	ACRYLONITRILE	FL
EPA 8260 C	BENZENE	FL
EPA 8260 C	BROMOCHLOROMETHANE	FL
EPA 8260 C	BROMOFORM	FL
EPA 8260 C	CARBON TETRACHLORIDE	FL
EPA 8260 C	CHLORODIBROMOMETHANE	FL
EPA 8260 C	CHLOROFORM	FL
EPA 8260 C	CIS-1,2-DICHLOROETHYLENE	FL
EPA 8260 C	CYCLOHEXANE	FL
EPA 8260 C	DICHLORODIFLUOROMETHANE (FREON-12)	FL
EPA 8260 C	ETHYL ACETATE	FL
EPA 8260 C	ETHYLBENZENE	FL
EPA 8260 C	IODOMETHANE (METHYL IODIDE)	FL
EPA 8260 B - EXTENDED	N-HEXANE	FL
EPA 8260 C	1,1,1,2-TETRACHLOROETHANE	FL
EPA 8260 C	1,1,2,2-TETRACHLOROETHANE	FL
EPA 8260 C	1,1-DICHLOROETHANE	FL
EPA 8260 C	1,1-DICHLOROPROPENE	FL
EPA 8260 C	1,2,3-TRICHLOROPROPANE	FL
EPA 8260 C	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	FL
EPA 8260 C	1,2-DICHLOROBENZENE	FL
EPA 8260 C	1,2-DICHLOROPROPANE	FL
EPA 8260 C	1,3-DICHLOROBENZENE	FL
EPA 8260 C	1,4-DICHLOROBENZENE	FL
EPA 8260 C	1-BUTANOL (N-BUTANOL)	FL
EPA 8260 C	2-BUTANONE (METHYL ETHYL KETONE, MEK)	FL
EPA 8260 C	2-CHLOROTOLUENE	FL
EPA 8260 C	2-NITROPROPANE	FL
EPA 8260 C	4-ISOPROPYLTOLUENE (P-CYMENE)	FL
EPA 8260 C	ACETONE	FL
EPA 8260 C	ACROLEIN (PROPENAL)	FL
EPA 8260 C	ALLYL CHLORIDE (3-CHLOROPROPENE)	FL
EPA 8260 C	BROMOBENZENE	FL
EPA 8260 C	BROMODICHLOROMETHANE	FL
EPA 8260 C	CARBON DISULFIDE	FL
EPA 8260 C	CHLOROBENZENE	FL
EPA 8260 C	CHLOROETHANE (ETHYL CHLORIDE)	FL
EPA 8260 C	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	FL
EPA 8260 C	CIS-1,3-DICHLOROPROPENE	FL
EPA 8260 C	DIBROMOMETHANE (METHYLENE BROMIDE)	FL
EPA 8260 C	DIETHYL ETHER	FL
EPA 8260 C	ETHYL METHACRYLATE	FL
EPA 8260 C	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA 8260 C	ISOBUTYL ALCOHOL (2-METHYL-1-PROPANOL)	FL

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EPA 8260 C	ISOPROPYLBENZENE	FL	EPA 8260 C	METHACRYLONITRILE	FL
EPA 8260 C	METHYL BROMIDE (BROMOMETHANE)	FL	EPA 8260 C	METHYL CHLORIDE (CHLOROMETHANE)	FL
EPA 8260 C	METHYL METHACRYLATE	FL	EPA 8260 C	METHYL TERT-BUTYL ETHER (MTBE)	FL
EPA 8260 C	METHYLCYCLOHEXANE	FL	EPA 8260 C	METHYLENE CHLORIDE (DICHLOROMETHANE)	FL
EPA 8260 C	N-BUTYLBENZENE	FL	EPA 8260 C	N-PROPYLBENZENE	FL
EPA 8260 C	NAPHTHALENE	FL	EPA 8260 C	PROPIONITRILE (ETHYL CYANIDE)	FL
EPA 8260 C	SEC-BUTYLBENZENE	FL	EPA 8260 C	STYRENE	FL
EPA 8260 C	TERT-BUTYL ALCOHOL	FL	EPA 8260 C	TERT-BUTYLBENZENE	FL
EPA 8260 C	TETRACHLOROETHENE (PERCHLOROETHENE)	FL	EPA 8260 C	TOLUENE	FL
EPA 8260 C	TRANS-1,2-DICHLOROETHENE	FL	EPA 8260 C	TRANS-1,3-DICHLOROPROPENE	FL
EPA 8260 C	TRANS-1,4-DICHLORO-2-BUTENE	FL	EPA 8260 C	TRICHLOROETHENE (TRICHLOROETHYLENE)	FL
EPA 8260 C	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	FL	EPA 8260 C	VINYL ACETATE	FL
EPA 8260 C	VINYL CHLORIDE	FL	EPA 8260 C	XYLENE (TOTAL)	FL
EPA 8260 C - EXTENDED	1,1,2-TRICHLORO-1,2,2-TRIFLUORO ETHANE (FREON 113)	FL	EPA 8260 C - EXTENDED	CYCLOHEXANONE	FL
EPA 8260 C - EXTENDED	DI-ISOPROPYLETHER (DIPE, ISOPROPYL ETHER)	FL	EPA 8260 C - EXTENDED	DICHLOROFLUOROMETHANE (FREON 21)	FL
EPA 8260 C - EXTENDED	METHYL ACETATE	FL	EPA 8260 C - EXTENDED	N-HEPTANE	FL
EPA 8260 C - EXTENDED	N-HEXANE	FL	EPA 8260 C - EXTENDED	TETRAHYDROFURAN (THF)	FL
EPA 8270 C	1,2,4,5-TETRACHLOROBENZENE	FL	EPA 8270 C	1,2,4-TRICHLOROBENZENE	FL
EPA 8270 C	1,2-DICHLOROBENZENE	FL	EPA 8270 C	1,2-DINITROBENZENE	FL
EPA 8270 C	1,2-DIPHENYLHYDRAZINE	FL	EPA 8270 C	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL
EPA 8270 C	1,3-DICHLOROBENZENE	FL	EPA 8270 C	1,3-DINITROBENZENE (1,3-DNB)	FL
EPA 8270 C	1,4-DICHLOROBENZENE	FL	EPA 8270 C	1,4-DINITROBENZENE	FL
EPA 8270 C	1,4-NAPHTHOQUINONE	FL	EPA 8270 C	1,4-PHENYLENEDIAMINE	FL
EPA 8270 C	1-NAPHTHYLAMINE	FL	EPA 8270 C	2,3,4,6-TETRACHLOROPHENOL	FL
EPA 8270 C	2,4,5-TRICHLOROPHENOL	FL	EPA 8270 C	2,4,6-TRICHLOROPHENOL	FL
EPA 8270 C	2,4-DICHLOROPHENOL	FL	EPA 8270 C	2,4-DIMETHYLPHENOL	FL
EPA 8270 C	2,4-DINITROPHENOL	FL	EPA 8270 C	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 8270 C	2,6-DICHLOROPHENOL	FL	EPA 8270 C	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 8270 C	2-ACETYLAMINOFLUORENE	FL	EPA 8270 C	2-CHLORONAPHTHALENE	FL
EPA 8270 C	2-CHLOROPHENOL	FL	EPA 8270 C	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	FL
EPA 8270 C	2-METHYLNAPHTHALENE	FL	EPA 8270 C	2-METHYLPHENOL (O-CRESOL)	FL
EPA 8270 C	2-NAPHTHYLAMINE	FL	EPA 8270 C	2-NITROANILINE	FL

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EPA 8270 C	2-NITROPHENOL	FL	EPA 8270 C	2-PICOLINE (2-METHYLPYRIDINE)	FL
EPA 8270 C	3,3'-DICHLOROBENZIDINE	FL	EPA 8270 C	3,3'-DIMETHYLBENZIDINE	FL
EPA 8270 C	3-METHYLCHOLANTHRENE	FL	EPA 8270 C	3-NITROANILINE	FL
EPA 8270 C	4,4'-METHYLENEBIS(2-CHLOROANILINE)	FL	EPA 8270 C	4-AMINOBIPHENYL	FL
EPA 8270 C	4-BROMOPHENYL PHENYL ETHER	FL	EPA 8270 C	4-CHLORO-3-METHYLPHENOL	FL
EPA 8270 C	4-CHLOROANILINE	FL	EPA 8270 C	4-CHLOROPHENYL PHENYLETHER	FL
EPA 8270 C	4-DIMETHYL AMINOAZOBENZENE	FL	EPA 8270 C	4-NITROANILINE	FL
EPA 8270 C	4-NITROPHENOL	FL	EPA 8270 C	5-NITRO-O-TOLUIDINE	FL
EPA 8270 C	7,12-DIMETHYLBENZ(A) ANTHRACENE	FL	EPA 8270 C	A-A-DIMETHYLPHENETHYLAMINE	FL
EPA 8270 C	ACENAPHTHENE	FL	EPA 8270 C	ACENAPHTHYLENE	FL
EPA 8270 C	ACETOPHENONE	FL	EPA 8270 C	ANILINE	FL
EPA 8270 C	ANTHRACENE	FL	EPA 8270 C	ARAMITE	FL
EPA 8270 C	BENZIDINE	FL	EPA 8270 C	BENZO(A)ANTHRACENE	FL
EPA 8270 C	BENZO(A)PYRENE	FL	EPA 8270 C	BENZO(B)FLUORANTHENE	FL
EPA 8270 C	BENZO(G,H,I)PERYLENE	FL	EPA 8270 C	BENZO(K)FLUORANTHENE	FL
EPA 8270 C	BENZOIC ACID	FL	EPA 8270 C	BENZYL ALCOHOL	FL
EPA 8270 C	BIS(2-CHLOROETHOXY)METHANE	FL	EPA 8270 C	BIS(2-CHLOROETHYL) ETHER	FL
EPA 8270 C	BIS(2-CHLOROISOPROPYL) ETHER	FL	EPA 8270 C	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	FL
EPA 8270 C	BUTYL BENZYL PHTHALATE	FL	EPA 8270 C	CHLOROBENZILATE	FL
EPA 8270 C	CHRYSENE	FL	EPA 8270 C	DI-N-BUTYL PHTHALATE	FL
EPA 8270 C	DI-N-OCTYL PHTHALATE	FL	EPA 8270 C	DIALLATE	FL
EPA 8270 C	DIBENZO(A,H) ANTHRACENE	FL	EPA 8270 C	DIBENZOFURAN	FL
EPA 8270 C	DIETHYL PHTHALATE	FL	EPA 8270 C	DIMETHOATE	FL
EPA 8270 C	DIMETHYL PHTHALATE	FL	EPA 8270 C	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	FL
EPA 8270 C	DIPHENYLAMINE	FL	EPA 8270 C	DISULFOTON	FL
EPA 8270 C	ETHYL METHANESULFONATE	FL	EPA 8270 C	FAMPHUR	FL
EPA 8270 C	FLUORANTHENE	FL	EPA 8270 C	FLUORENE	FL
EPA 8270 C	HEXACHLOROBENZENE	FL	EPA 8270 C	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA 8270 C	HEXACHLOROCYCLOPENTADIENE	FL	EPA 8270 C	HEXACHLOROETHANE	FL
EPA 8270 C	HEXACHLOROPROPENE	FL	EPA 8270 C	INDENO(1,2,3-CD) PYRENE	FL
EPA 8270 C	ISODRIN	FL	EPA 8270 C	ISOPHORONE	FL
EPA 8270 C	ISOSAFROLE	FL	EPA 8270 C	METHAPYRILENE	FL
EPA 8270 C	METHYL METHANESULFONATE	FL	EPA 8270 C	METHYL PARATHION (PARATHION, METHYL)	FL
EPA 8270 C	N-NITROSO-DI-N-BUTYLAMINE	FL	EPA 8270 C	N-NITROSODI-N-PROPYLAMINE	FL

Commonwealth of Virginia

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Virginia Laboratory ID: 460175
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Expiration Date: September 14, 2015

NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8270 C	N-NITROSODIETHYLAMINE	FL	EPA 8270 C	N-NITROSODIMETHYLAMINE	FL
EPA 8270 C	N-NITROSODIPHENYLAMINE	FL	EPA 8270 C	N-NITROSOMETHYLETHYLAMINE	FL
EPA 8270 C	N-NITROSOMORPHOLINE	FL	EPA 8270 C	N-NITROSOPIPERIDINE	FL
EPA 8270 C	N-NITROSOPYRROLIDINE	FL	EPA 8270 C	NAPHTHALENE	FL
EPA 8270 C	NITROBENZENE	FL	EPA 8270 C	NITROQUINOLINE-1-OXIDE	FL
EPA 8270 C	O,O,O-TRIETHYL PHOSPHOROTHIOATE	FL	EPA 8270 C	O-TOLUIDINE (2-METHYLANILINE)	FL
EPA 8270 C	PARATHION (PARATHION - ETHYL)	FL	EPA 8270 C	PENTACHLOROBENZENE	FL
EPA 8270 C	PENTACHLORONITROBENZENE	FL	EPA 8270 C	PENTACHLOROPHENOL	FL
EPA 8270 C	PHENACETIN	FL	EPA 8270 C	PHENANTHRENE	FL
EPA 8270 C	PHENOL	FL	EPA 8270 C	PHORATE	FL
EPA 8270 C	PRONAMIDE (KERB)	FL	EPA 8270 C	PYRENE	FL
EPA 8270 C	PYRIDINE	FL	EPA 8270 C	SAFROLE	FL
EPA 8270 C	SULFOTEPP (TETRAETHYL DITHIOPYROPHOSPHATE)	FL	EPA 8270 C	THIONAZIN (ZINOPHOS)	FL
EPA 8270 C - EXTENDED	1,1-BIPHENYL	FL	EPA 8270 C - EXTENDED	1,4-DIOXANE (1,4-DIETHYLENEOXIDE)	FL
EPA 8270 C - EXTENDED	1-METHYLNAPHTHALENE	FL	EPA 8270 C - EXTENDED	2,3,5,6-TETRACHLOROPHENOL	FL
EPA 8270 C - EXTENDED	3+4-METHYL PHENOL (M+P CRESOL)	FL	EPA 8270 C - EXTENDED	ATRAZINE	FL
EPA 8270 C - EXTENDED	BENZALDEHYDE	FL	EPA 8270 C - EXTENDED	CAPROLACTAM	FL
EPA 8270 C - EXTENDED	CARBAZOLE	FL	EPA 8270 C - EXTENDED	INDENE	FL
EPA 8270 D	1,2,4,5-TETRACHLOROBENZENE	FL	EPA 8270 D	1,2,4-TRICHLOROBENZENE	FL
EPA 8270 D	1,2-DICHLOROBENZENE	FL	EPA 8270 D	1,2-DINITROBENZENE	FL
EPA 8270 D	1,2-DIPHENYLHYDRAZINE	FL	EPA 8270 D	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL
EPA 8270 D	1,3-DICHLOROBENZENE	FL	EPA 8270 D	1,3-DINITROBENZENE (1,3-DNB)	FL
EPA 8270 D	1,4-DICHLOROBENZENE	FL	EPA 8270 D	1,4-DINITROBENZENE	FL
EPA 8270 D	1,4-NAPHTHOQUINONE	FL	EPA 8270 D	1,4-PHENYLENEDIAMINE	FL
EPA 8270 D	1-NAPHTHYLAMINE	FL	EPA 8270 D	2,3,4,6-TETRACHLOROPHENOL	FL
EPA 8270 D	2,4,5-TRICHLOROPHENOL	FL	EPA 8270 D	2,4,6-TRICHLOROPHENOL	FL
EPA 8270 D	2,4-DICHLOROPHENOL	FL	EPA 8270 D	2,4-DIMETHYLPHENOL	FL
EPA 8270 D	2,4-DINITROPHENOL	FL	EPA 8270 D	2,4-DINITROTOLUENE (2,4-DNT)	FL
EPA 8270 D	2,6-DICHLOROPHENOL	FL	EPA 8270 D	2,6-DINITROTOLUENE (2,6-DNT)	FL
EPA 8270 D	2-ACETYLAMINOFLUORENE	FL	EPA 8270 D	2-CHLORONAPHTHALENE	FL
EPA 8270 D	2-CHLOROPHENOL	FL	EPA 8270 D	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	FL
EPA 8270 D	2-METHYLNAPHTHALENE	FL	EPA 8270 D	2-METHYLPHENOL (O-CRESOL)	FL
EPA 8270 D	2-NAPHTHYLAMINE	FL	EPA 8270 D	2-NITROANILINE	FL
EPA 8270 D	2-NITROPHENOL	FL	EPA 8270 D	2-PICOLINE (2-METHYLPYRIDINE)	FL
EPA 8270 D	3,3'-DICHLOROBENZIDINE	FL	EPA 8270 D	3-METHYLCHOLANTHRENE	FL

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METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8270 D	3-NITROANILINE	FL	EPA 8270 D	4,4'-METHYLENEBIS(2-CHLOROANILINE)	FL
EPA 8270 D	4-AMINOBIPHENYL	FL	EPA 8270 D	4-BROMOPHENYL PHENYL ETHER	FL
EPA 8270 D	4-CHLORO-3-METHYLPHENOL	FL	EPA 8270 D	4-CHLOROANILINE	FL
EPA 8270 D	4-CHLOROPHENYL PHENYLETHER	FL	EPA 8270 D	4-DIMETHYL AMINOAZOBENZENE	FL
EPA 8270 D	4-NITROANILINE	FL	EPA 8270 D	4-NITROPHENOL	FL
EPA 8270 D	5-NITRO-O-TOLUIDINE	FL	EPA 8270 D	7,12-DIMETHYLBENZ(A) ANTHRACENE	FL
EPA 8270 D	A-A-DIMETHYLPHENETHYLAMINE	FL	EPA 8270 D	ACENAPHTHENE	FL
EPA 8270 D	ACENAPHTHYLENE	FL	EPA 8270 D	ACETOPHENONE	FL
EPA 8270 D	ANILINE	FL	EPA 8270 D	ANTHRACENE	FL
EPA 8270 D	ARAMITE	FL	EPA 8270 D	BENZIDINE	FL
EPA 8270 D	BENZO(A)ANTHRACENE	FL	EPA 8270 D	BENZO(A)PYRENE	FL
EPA 8270 D	BENZO(B)FLUORANTHENE	FL	EPA 8270 D	BENZO(G,H,I)PERYLENE	FL
EPA 8270 D	BENZO(K)FLUORANTHENE	FL	EPA 8270 D	BENZOIC ACID	FL
EPA 8270 D	BENZYL ALCOHOL	FL	EPA 8270 D	BIS(2-CHLOROETHOXY)METHANE	FL
EPA 8270 D	BIS(2-CHLOROETHYL) ETHER	FL	EPA 8270 D	BIS(2-CHLOROISOPROPYL) ETHER	FL
EPA 8270 D	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	FL	EPA 8270 D	BUTYL BENZYL PHTHALATE	FL
EPA 8270 D	CHLOROBENZILATE	FL	EPA 8270 D	CHRYSENE	FL
EPA 8270 D	DI-N-BUTYL PHTHALATE	FL	EPA 8270 D	DI-N-OCTYL PHTHALATE	FL
EPA 8270 D	DIALLATE	FL	EPA 8270 D	DIBENZO(A,H) ANTHRACENE	FL
EPA 8270 D	DIBENZOFURAN	FL	EPA 8270 D	DIETHYL PHTHALATE	FL
EPA 8270 D	DIMETHOATE	FL	EPA 8270 D	DIMETHYL PHTHALATE	FL
EPA 8270 D	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	FL	EPA 8270 D	DIPHENYLAMINE	FL
EPA 8270 D	DISULFOTON	FL	EPA 8270 D	ETHYL METHANESULFONATE	FL
EPA 8270 D	FAMPHUR	FL	EPA 8270 D	FLUORANTHENE	FL
EPA 8270 D	FLUORENE	FL	EPA 8270 D	HEXACHLOROBENZENE	FL
EPA 8270 D	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL	EPA 8270 D	HEXACHLOROCYCLOPENTADIENE	FL
EPA 8270 D	HEXACHLOROETHANE	FL	EPA 8270 D	HEXACHLOROPROPENE	FL
EPA 8270 D	INDENO(1,2,3-CD) PYRENE	FL	EPA 8270 D	ISODRIN	FL
EPA 8270 D	ISOPHORONE	FL	EPA 8270 D	ISOSAFROLE	FL
EPA 8270 D	METHAPYRILENE	FL	EPA 8270 D	METHYL METHANESULFONATE	FL
EPA 8270 D	METHYL PARATHION (PARATHION, METHYL)	FL	EPA 8270 D	N-NITROSO-DI-N-BUTYLAMINE	FL
EPA 8270 D	N-NITROSODI-N-PROPYLAMINE	FL	EPA 8270 D	N-NITROSODIETHYLAMINE	FL
EPA 8270 D	N-NITROSODIMETHYLAMINE	FL	EPA 8270 D	N-NITROSODIPHENYLAMINE	FL
EPA 8270 D	N-NITROSOMETHYLETHYLAMINE	FL	EPA 8270 D	N-NITROSOMORPHOLINE	FL

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8270 D	N-NITROSOPIPERIDINE	FL	EPA 8270 D	N-NITROSOPYRROLIDINE	FL
EPA 8270 D	NAPHTHALENE	FL	EPA 8270 D	NITROBENZENE	FL
EPA 8270 D	NITROQUINOLINE-1-OXIDE	FL	EPA 8270 D	O,O,O-TRIETHYL PHOSPHOROTHIOATE	FL
EPA 8270 D	O-TOLUIDINE (2-METHYLANILINE)	FL	EPA 8270 D	PARATHION (PARATHION - ETHYL)	FL
EPA 8270 D	PENTACHLOROBENZENE	FL	EPA 8270 D	PENTACHLORONITROBENZENE	FL
EPA 8270 D	PENTACHLOROPHENOL	FL	EPA 8270 D	PHENACETIN	FL
EPA 8270 D	PHENANTHRENE	FL	EPA 8270 D	PHENOL	FL
EPA 8270 D	PHORATE	FL	EPA 8270 D	PRONAMIDE (KERB)	FL
EPA 8270 D	PYRENE	FL	EPA 8270 D	SAFROLE	FL
EPA 8270 D	SULFOTEPP (TETRAETHYL DITHIOPYROPHOSPHATE)	FL	EPA 8270 D	THIONAZIN (ZINOPHOS)	FL
EPA 8270 D - EXTENDED	1,1-BIPHENYL	FL	EPA 8270 D - EXTENDED	1,4-DIOXANE (1,4-DIETHYLENEOXIDE)	FL
EPA 8270 D - EXTENDED	1-METHYLNAPHTHALENE	FL	EPA 8270 D - EXTENDED	2,3,5,6-TETRACHLOROPHENOL	FL
EPA 8270 D - EXTENDED	3+4-METHYL PHENOL (M+P CRESOL)	FL	EPA 8270 D - EXTENDED	ATRAZINE	FL
EPA 8270 D - EXTENDED	BENZALDEHYDE	FL	EPA 8270 D - EXTENDED	CAPROLACTAM	FL
EPA 8270 D - EXTENDED	INDENE	FL	EPA 8270 D - EXTENDED	PYRIDINE	FL
EPA 8315 A	FORMALDEHYDE	FL	EPA 9012 A	AMENABLE CYANIDE	FL
EPA 9012 A	TOTAL CYANIDE	FL	EPA 9030 B	PREP: SULFIDE	FL
EPA 9034	TOTAL SULFIDES	FL	EPA 9040 C	PH	FL
EPA 9050 A	CONDUCTIVITY	FL	EPA 9056 A	BROMIDE	FL
EPA 9056 A	CHLORIDE	FL	EPA 9056 A	FLUORIDE	FL
EPA 9056 A	NITRATE AS N	FL	EPA 9056 A	NITRITE	FL
EPA 9056 A	ORTHOPHOSPHATE AS P	FL	EPA 9056 A	SULFATE	FL
EPA 9060	TOTAL ORGANIC CARBON	FL	EPA 9065	TOTAL PHENOLICS	FL
EPA 9251	CHLORIDE	FL	RSK-175	ETHANE	FL
RSK-175	ETHENE	FL	RSK-175	METHANE	FL
SM 2320 B-1997	ALKALINITY AS CACO3	FL	SM 2340 B-1997	TOTAL HARDNESS AS CACO3	FL
SM 2510 B-1997	CONDUCTIVITY	FL	SM 2540 B-1997	RESIDUE-TOTAL	FL
SM 2540 C-1997	RESIDUE-FILTERABLE (TDS)	FL	SM 2540 D-1997	RESIDUE-NONFILTERABLE (TSS)	FL
SM 3500-CR B-2009	CHROMIUM VI	FL	SM 4500-CL^- E-1997	CHLORIDE	FL
SM 4500-CN^- E-1999	CYANIDE	FL	SM 4500-CN^- G-1999	AMENABLE CYANIDE	FL
SM 4500-NH3 C-1997	AMMONIA AS N	FL	SM 4500-NH3 C-1997	KJELDAHL NITROGEN - TOTAL	FL
SM 4500-NH3 D-1997	AMMONIA AS N	FL	SM 4500-P E-1999	ORTHOPHOSPHATE AS P	FL
SM 4500-P E-1999	PHOSPHORUS, TOTAL	FL	SM 4500-$S2^-$ F-2000	SULFIDE	FL
SM 5210 B-2001	BIOCHEMICAL OXYGEN DEMAND	FL	SM 5210 B-2001	CARBONACEOUS BOD, CBOD	FL
SM 5220 D-1997	CHEMICAL OXYGEN DEMAND	FL	SM 5310 C-2000	TOTAL ORGANIC CARBON	FL

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 1010 A	FLASHPOINT	FL	EPA 1311	PREP: TOXICITY CHARACTERISTIC LEACHING PROCEDURE	FL
EPA 1312	PREP: SYNTHETIC PRECIPITATION LEACHING PROCEDURE	FL	EPA 6010 B	ALUMINUM	FL
EPA 6010 B	ANTIMONY	FL	EPA 6010 B	ARSENIC	FL
EPA 6010 B	BARIUM	FL	EPA 6010 B	BERYLLIUM	FL
EPA 6010 B	BORON	FL	EPA 6010 B	CADMIUM	FL
EPA 6010 B	CALCIUM	FL	EPA 6010 B	CHROMIUM	FL
EPA 6010 B	COBALT	FL	EPA 6010 B	COPPER	FL
EPA 6010 B	IRON	FL	EPA 6010 B	LEAD	FL
EPA 6010 B	LITHIUM	FL	EPA 6010 B	MAGNESIUM	FL
EPA 6010 B	MANGANESE	FL	EPA 6010 B	MOLYBDENUM	FL
EPA 6010 B	NICKEL	FL	EPA 6010 B	POTASSIUM	FL
EPA 6010 B	SELENIUM	FL	EPA 6010 B	SILICA AS SIO2	FL
EPA 6010 B	SILVER	FL	EPA 6010 B	SODIUM	FL
EPA 6010 B	STRONTIUM	FL	EPA 6010 B	THALLIUM	FL
EPA 6010 B	TIN	FL	EPA 6010 B	TITANIUM	FL
EPA 6010 B	VANADIUM	FL	EPA 6010 B	ZINC	FL
EPA 6010 C	ALUMINUM	FL	EPA 6010 C	ANTIMONY	FL
EPA 6010 C	ARSENIC	FL	EPA 6010 C	BARIUM	FL
EPA 6010 C	BERYLLIUM	FL	EPA 6010 C	BORON	FL
EPA 6010 C	CADMIUM	FL	EPA 6010 C	CALCIUM	FL
EPA 6010 C	CHROMIUM	FL	EPA 6010 C	COBALT	FL
EPA 6010 C	COPPER	FL	EPA 6010 C	IRON	FL
EPA 6010 C	LEAD	FL	EPA 6010 C	LITHIUM	FL
EPA 6010 C	MAGNESIUM	FL	EPA 6010 C	MANGANESE	FL
EPA 6010 C	MOLYBDENUM	FL	EPA 6010 C	NICKEL	FL
EPA 6010 C	POTASSIUM	FL	EPA 6010 C	SELENIUM	FL
EPA 6010 C	SILICA AS SIO2	FL	EPA 6010 C	SILVER	FL
EPA 6010 C	SODIUM	FL	EPA 6010 C	STRONTIUM	FL
EPA 6010 C	THALLIUM	FL	EPA 6010 C	TIN	FL
EPA 6010 C	TITANIUM	FL	EPA 6010 C	VANADIUM	FL
EPA 6010 C	ZINC	FL	EPA 6020	ALUMINUM	FL
EPA 6020	ANTIMONY	FL	EPA 6020	ARSENIC	FL
EPA 6020	BARIUM	FL	EPA 6020	BERYLLIUM	FL
EPA 6020	CADMIUM	FL	EPA 6020	CHROMIUM	FL
EPA 6020	COBALT	FL	EPA 6020	COPPER	FL
EPA 6020	LEAD	FL	EPA 6020	MANGANESE	FL
EPA 6020	NICKEL	FL	EPA 6020	SILVER	FL

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EPA 6020	THALLIUM	FL	EPA 6020	ZINC	FL
EPA 6020 - EXTENDED	BORON	FL	EPA 6020 - EXTENDED	IRON	FL
EPA 6020 - EXTENDED	MAGNESIUM	FL	EPA 6020 - EXTENDED	MOLYBDENUM	FL
EPA 6020 - EXTENDED	POTASSIUM	FL	EPA 6020 - EXTENDED	SELENIUM	FL
EPA 6020 - EXTENDED	SODIUM	FL	EPA 6020 - EXTENDED	STRONTIUM	FL
EPA 6020 - EXTENDED	TIN	FL	EPA 6020 - EXTENDED	TITANIUM	FL
EPA 6020 - EXTENDED	VANADIUM	FL	EPA 6020 A	ALUMINUM	FL
EPA 6020 A	ANTIMONY	FL	EPA 6020 A	ARSENIC	FL
EPA 6020 A	BARIUM	FL	EPA 6020 A	BERYLLIUM	FL
EPA 6020 A	CADMIUM	FL	EPA 6020 A	CHROMIUM	FL
EPA 6020 A	COBALT	FL	EPA 6020 A	COPPER	FL
EPA 6020 A	IRON	FL	EPA 6020 A	LEAD	FL
EPA 6020 A	MAGNESIUM	FL	EPA 6020 A	MANGANESE	FL
EPA 6020 A	NICKEL	FL	EPA 6020 A	POTASSIUM	FL
EPA 6020 A	SELENIUM	FL	EPA 6020 A	SILVER	FL
EPA 6020 A	SODIUM	FL	EPA 6020 A	THALLIUM	FL
EPA 6020 A	VANADIUM	FL	EPA 6020 A	ZINC	FL
EPA 6020 A - EXTENDED	BORON	FL	EPA 6020 A - EXTENDED	MOLYBDENUM	FL
EPA 6020 A - EXTENDED	STRONTIUM	FL	EPA 6020 A - EXTENDED	TIN	FL
EPA 6020 A - EXTENDED	TITANIUM	FL	EPA 7196 A	CHROMIUM VI	FL
EPA 7471 A	MERCURY	FL	EPA 8015 B	DIESEL RANGE ORGANICS (DRO)	FL
EPA 8015 B	GASOLINE RANGE ORGANICS (GRO)	FL	EPA 8015 C	DIESEL RANGE ORGANICS (DRO)	FL
EPA 8015 C	GASOLINE RANGE ORGANICS (GRO)	FL	EPA 8081 A	4,4'-DDD	FL
EPA 8081 A	4,4'-DDE	FL	EPA 8081 A	4,4'-DDT	FL
EPA 8081 A	ALDRIN	FL	EPA 8081 A	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 A	ALPHA-CHLORDANE [CIS-CHLORDANE]	FL	EPA 8081 A	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 A	CHLORDANE (TECH.)	FL	EPA 8081 A	CHLOROBENZILATE	FL
EPA 8081 A	DELTA-BHC	FL	EPA 8081 A	DIALLATE	FL
EPA 8081 A	DIELDRIN	FL	EPA 8081 A	ENDOSULFAN I	FL
EPA 8081 A	ENDOSULFAN II	FL	EPA 8081 A	ENDOSULFAN SULFATE	FL
EPA 8081 A	ENDRIN	FL	EPA 8081 A	ENDRIN ALDEHYDE	FL
EPA 8081 A	ENDRIN KETONE	FL	EPA 8081 A	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	FL

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METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8081 A	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	FL	EPA 8081 A	HEPTACHLOR	FL
EPA 8081 A	HEPTACHLOR EPOXIDE	FL	EPA 8081 A	ISODRIN	FL
EPA 8081 A	METHOXYCHLOR	FL	EPA 8081 A	TOXAPHENE (CHLORINATED CAMPHENE)	FL
EPA 8081 A - EXTENDED	KEPONE	FL	EPA 8081 B	4,4'-DDD	FL
EPA 8081 B	4,4'-DDE	FL	EPA 8081 B	4,4'-DDT	FL
EPA 8081 B	ALDRIN	FL	EPA 8081 B	ALPHA-BHC (ALPHA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 B	ALPHA-CHLORDANE [CIS-CHLORDANE]	FL	EPA 8081 B	BETA-BHC (BETA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 B	CHLORDANE (TECH.)	FL	EPA 8081 B	CHLOROBENZILATE	FL
EPA 8081 B	DELTA-BHC	FL	EPA 8081 B	DIALLATE	FL
EPA 8081 B	DIELDRIN	FL	EPA 8081 B	ENDOSULFAN I	FL
EPA 8081 B	ENDOSULFAN II	FL	EPA 8081 B	ENDOSULFAN SULFATE	FL
EPA 8081 B	ENDRIN	FL	EPA 8081 B	ENDRIN ALDEHYDE	FL
EPA 8081 B	ENDRIN KETONE	FL	EPA 8081 B	GAMMA-BHC (LINDANE, GAMMA-HEXACHLOROCYCLOHEXANE)	FL
EPA 8081 B	GAMMA-CHLORDANE [BETA-CHLORDANE, TRANS-CHLORDANE]	FL	EPA 8081 B	HEPTACHLOR	FL
EPA 8081 B	HEPTACHLOR EPOXIDE	FL	EPA 8081 B	ISODRIN	FL
EPA 8081 B	METHOXYCHLOR	FL	EPA 8081 B - EXTENDED	KEPONE	FL
EPA 8082 - EXTENDED	AROCLOR-1262 (PCB-1262)	FL	EPA 8082 - EXTENDED	AROCLOR-1268 (PCB-1268)	FL
EPA 8082 A	AROCLOR-1016 (PCB-1016)	FL	EPA 8082 A	AROCLOR-1221 (PCB-1221)	FL
EPA 8082 A	AROCLOR-1232 (PCB-1232)	FL	EPA 8082 A	AROCLOR-1242 (PCB-1242)	FL
EPA 8082 A	AROCLOR-1248 (PCB-1248)	FL	EPA 8082 A	AROCLOR-1254 (PCB-1254)	FL
EPA 8082 A	AROCLOR-1260 (PCB-1260)	FL	EPA 8082 A - EXTENDED	AROCLOR-1262 (PCB-1262)	FL
EPA 8082 A - EXTENDED	AROCLOR-1268 (PCB-1268)	FL	EPA 8151 A	2,4,5-T	FL
EPA 8151 A	2,4-D	FL	EPA 8151 A	2,4-DB	FL
EPA 8151 A	DALAPON	FL	EPA 8151 A	DICAMBA	FL
EPA 8151 A	DICHLOROPROP (DICHLORPROP)	FL	EPA 8151 A	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	FL
EPA 8151 A	MCPA	FL	EPA 8151 A	MCPP	FL
EPA 8151 A	SILVEX (2,4,5-TP)	FL	EPA 8260 B	1,1,1,2-TETRACHLOROETHANE	FL
EPA 8260 B	1,1,1-TRICHLOROETHANE	FL	EPA 8260 B	1,1,2,2-TETRACHLOROETHANE	FL
EPA 8260 B	1,1,2-TRICHLOROETHANE	FL	EPA 8260 B	1,1-DICHLOROETHANE	FL
EPA 8260 B	1,1-DICHLOROETHYLENE	FL	EPA 8260 B	1,1-DICHLOROPROPENE	FL

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Expiration Date: September 14, 2015

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8260 B	1,2,3-TRICHLOROBENZENE	FL	EPA 8260 B	1,2,3-TRICHLOROPROPANE	FL
EPA 8260 B	1,2,4-TRICHLOROBENZENE	FL	EPA 8260 B	1,2,4-TRIMETHYLBENZENE	FL
EPA 8260 B	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	FL	EPA 8260 B	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	FL
EPA 8260 B	1,2-DICHLOROBENZENE	FL	EPA 8260 B	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	FL
EPA 8260 B	1,2-DICHLOROPROPANE	FL	EPA 8260 B	1,3,5-TRIMETHYLBENZENE	FL
EPA 8260 B	1,3-DICHLOROBENZENE	FL	EPA 8260 B	1,3-DICHLOROPROPANE	FL
EPA 8260 B	1,4-DICHLOROBENZENE	FL	EPA 8260 B	1,4-DIOXANE (1,4-DIETHYLENEOXIDE)	FL
EPA 8260 B	1-BUTANOL (N-BUTANOL)	FL	EPA 8260 B	2,2-DICHLOROPROPANE	FL
EPA 8260 B	2-BUTANONE (METHYL ETHYL KETONE, MEK)	FL	EPA 8260 B	2-CHLOROETHYL VINYL ETHER	FL
EPA 8260 B	2-CHLOROTOLUENE	FL	EPA 8260 B	2-HEXANONE	FL
EPA 8260 B	2-NITROPROPANE	FL	EPA 8260 B	4-CHLOROTOLUENE	FL
EPA 8260 B	4-ISOPROPYLTOLUENE (P-CYMENE)	FL	EPA 8260 B	4-METHYL-2-PENTANONE (MIBK)	FL
EPA 8260 B	ACETONE	FL	EPA 8260 B	ACETONITRILE	FL
EPA 8260 B	ACROLEIN (PROPENAL)	FL	EPA 8260 B	ACRYLONITRILE	FL
EPA 8260 B	ALLYL CHLORIDE (3-CHLOROPROPENE)	FL	EPA 8260 B	BENZENE	FL
EPA 8260 B	BROMOBENZENE	FL	EPA 8260 B	BROMOCHLOROMETHANE	FL
EPA 8260 B	BROMODICHLOROMETHANE	FL	EPA 8260 B	BROMOFORM	FL
EPA 8260 B	CARBON DISULFIDE	FL	EPA 8260 B	CARBON TETRACHLORIDE	FL
EPA 8260 B	CHLOROBENZENE	FL	EPA 8260 B	CHLORODIBROMOMETHANE	FL
EPA 8260 B	CHLOROETHANE (ETHYL CHLORIDE)	FL	EPA 8260 B	CHLOROFORM	FL
EPA 8260 B	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	FL	EPA 8260 B	CIS-1,2-DICHLOROETHYLENE	FL
EPA 8260 B	CIS-1,3-DICHLOROPROPENE	FL	EPA 8260 B	DIBROMOMETHANE (METHYLENE BROMIDE)	FL
EPA 8260 B	DICHLORODIFLUOROMETHANE (FREON-12)	FL	EPA 8260 B	DIETHYL ETHER	FL
EPA 8260 B	ETHYL ACETATE	FL	EPA 8260 B	ETHYL METHACRYLATE	FL
EPA 8260 B	ETHYLBENZENE	FL	EPA 8260 B	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA 8260 B	IODOMETHANE (METHYL IODIDE)	FL	EPA 8260 B	ISOBUTYL ALCOHOL (2-METHYL-1-PROPANOL)	FL
EPA 8260 B	ISOPROPYLBENZENE	FL	EPA 8260 B	METHACRYLONITRILE	FL
EPA 8260 B	METHYL BROMIDE (BROMOMETHANE)	FL	EPA 8260 B	METHYL CHLORIDE (CHLOROMETHANE)	FL
EPA 8260 B	METHYL METHACRYLATE	FL	EPA 8260 B	METHYL TERT-BUTYL ETHER (MTBE)	FL
EPA 8260 B	METHYLENE CHLORIDE (DICHLOROMETHANE)	FL	EPA 8260 B	N-BUTYLBENZENE	FL

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8260 B	N-PROPYLBENZENE	FL
EPA 8260 B	PROPIONITRILE (ETHYL CYANIDE)	FL
EPA 8260 B	STYRENE	FL
EPA 8260 B	TERT-BUTYLBENZENE	FL
EPA 8260 B	TOLUENE	FL
EPA 8260 B	TRANS-1,3-DICHLOROPROPENE	FL
EPA 8260 B	TRICHLOROETHENE (TRICHLOROETHYLENE)	FL
EPA 8260 B	VINYL ACETATE	FL
EPA 8260 B	XYLENE (TOTAL)	FL
EPA 8260 B - EXTENDED	CYCLOHEXANE	FL
EPA 8260 B - EXTENDED	DIISOPROPYLETHER (DIPE, ISOPROPYL ETHER)	FL
EPA 8260 B - EXTENDED	METHYL ACETATE	FL
EPA 8260 B - EXTENDED	N-HEPTANE	FL
EPA 8260 B - EXTENDED	TETRAHYDROFURAN (THF)	FL
EPA 8260 C	1,1,1-TRICHLOROETHANE	FL
EPA 8260 C	1,1,2-TRICHLOROETHANE	FL
EPA 8260 C	1,1-DICHLOROETHYLENE	FL
EPA 8260 C	1,2,3-TRICHLOROBENZENE	FL
EPA 8260 C	1,2,4-TRICHLOROBENZENE	FL
EPA 8260 C	1,2-DIBROMO-3-CHLOROPROPANE (DBCP)	FL
EPA 8260 C	1,2-DICHLOROBENZENE	FL
EPA 8260 C	1,2-DICHLOROPROPANE	FL
EPA 8260 C	1,3-DICHLOROBENZENE	FL
EPA 8260 C	1,4-DICHLOROBENZENE	FL
EPA 8260 C	1-BUTANOL (N-BUTANOL)	FL
EPA 8260 C	2-BUTANONE (METHYL ETHYL KETONE, MEK)	FL
EPA 8260 C	2-CHLOROTOLUENE	FL
EPA 8260 C	2-NITROPROPANE	FL
EPA 8260 C	4-ISOPROPYLTOLUENE (P-CYMENE)	FL
EPA 8260 C	ACETONE	FL
EPA 8260 C	ACROLEIN (PROPENAL)	FL
EPA 8260 C	ALLYL CHLORIDE (3-CHLOROPROPENE)	FL
EPA 8260 B	NAPHTHALENE	FL
EPA 8260 B	SEC-BUTYLBENZENE	FL
EPA 8260 B	TERT-BUTYL ALCOHOL	FL
EPA 8260 B	TETRACHLOROETHENE (PERCHLOROETHENE)	FL
EPA 8260 B	TRANS-1,2-DICHLOROETHENE	FL
EPA 8260 B	TRANS-1,4-DICHLORO-2-BUTENE	FL
EPA 8260 B	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	FL
EPA 8260 B	VINYL CHLORIDE	FL
EPA 8260 B - EXTENDED	1,1,2-TRICHLORO-1,2,2-TRIFLUORO ETHANE (FREON 113)	FL
EPA 8260 B - EXTENDED	CYCLOHEXANONE	FL
EPA 8260 B - EXTENDED	DICHLOROFLUOROMETHANE (FREON 21)	FL
EPA 8260 B - EXTENDED	METHYLCYCLOHEXANE	FL
EPA 8260 B - EXTENDED	N-HEXANE	FL
EPA 8260 C	1,1,1,2-TETRACHLOROETHANE	FL
EPA 8260 C	1,1,2,2-TETRACHLOROETHANE	FL
EPA 8260 C	1,1-DICHLOROETHANE	FL
EPA 8260 C	1,1-DICHLOROPROPENE	FL
EPA 8260 C	1,2,3-TRICHLOROPROPANE	FL
EPA 8260 C	1,2,4-TRIMETHYLBENZENE	FL
EPA 8260 C	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	FL
EPA 8260 C	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	FL
EPA 8260 C	1,3,5-TRIMETHYLBENZENE	FL
EPA 8260 C	1,3-DICHLOROPROPANE	FL
EPA 8260 C	1,4-DIOXANE (1,4-DIETHYLENEOXIDE)	FL
EPA 8260 C	2,2-DICHLOROPROPANE	FL
EPA 8260 C	2-CHLOROETHYL VINYL ETHER	FL
EPA 8260 C	2-HEXANONE	FL
EPA 8260 C	4-CHLOROTOLUENE	FL
EPA 8260 C	4-METHYL-2-PENTANONE (MIBK)	FL
EPA 8260 C	ACETONITRILE	FL
EPA 8260 C	ACRYLONITRILE	FL
EPA 8260 C	BENZENE	FL

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8260 C	BROMOBENZENE	FL	EPA 8260 C	BROMOCHLOROMETHANE	FL
EPA 8260 C	BROMODICHLOROMETHANE	FL	EPA 8260 C	BROMOFORM	FL
EPA 8260 C	CARBON DISULFIDE	FL	EPA 8260 C	CARBON TETRACHLORIDE	FL
EPA 8260 C	CHLOROBENZENE	FL	EPA 8260 C	CHLORODIBROMOMETHANE	FL
EPA 8260 C	CHLOROETHANE (ETHYL CHLORIDE)	FL	EPA 8260 C	CHLOROFORM	FL
EPA 8260 C	CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	FL	EPA 8260 C	CIS-1,2-DICHLOROETHYLENE	FL
EPA 8260 C	CIS-1,3-DICHLOROPROPENE	FL	EPA 8260 C	CYCLOHEXANE	FL
EPA 8260 C	DIBROMOMETHANE (METHYLENE BROMIDE)	FL	EPA 8260 C	DICHLORODIFLUOROMETHANE (FREON 12)	FL
EPA 8260 C	DIETHYL ETHER	FL	EPA 8260 C	ETHYL ACETATE	FL
EPA 8260 C	ETHYL METHACRYLATE	FL	EPA 8260 C	ETHYLBENZENE	FL
EPA 8260 C	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL	EPA 8260 C	IODOMETHANE (METHYL IODIDE)	FL
EPA 8260 C	ISOBUTYL ALCOHOL (2-METHYL-1-PROPANOL)	FL	EPA 8260 C	ISOPROPYLBENZENE	FL
EPA 8260 C	METHACRYLONITRILE	FL	EPA 8260 C	METHYL BROMIDE (BROMOMETHANE)	FL
EPA 8260 C	METHYL CHLORIDE (CHLOROMETHANE)	FL	EPA 8260 C	METHYL METHACRYLATE	FL
EPA 8260 C	METHYL TERT-BUTYL ETHER (MTBE)	FL	EPA 8260 C	METHYLCYCLOHEXANE	FL
EPA 8260 C	METHYLENE CHLORIDE (DICHLOROMETHANE)	FL	EPA 8260 C	N-BUTYLBENZENE	FL
EPA 8260 C	N-PROPYLBENZENE	FL	EPA 8260 C	NAPHTHALENE	FL
EPA 8260 C	PROPIONITRILE (ETHYL CYANIDE)	FL	EPA 8260 C	SEC-BUTYLBENZENE	FL
EPA 8260 C	STYRENE	FL	EPA 8260 C	TERT-BUTYL ALCOHOL	FL
EPA 8260 C	TERT-BUTYLBENZENE	FL	EPA 8260 C	TETRACHLOROETHENE (PERCHLOROETHENE)	FL
EPA 8260 C	TOLUENE	FL	EPA 8260 C	TRANS-1,2-DICHLOROETHENE	FL
EPA 8260 C	TRANS-1,3-DICHLOROPROPENE	FL	EPA 8260 C	TRANS-1,4-DICHLORO-2-BUTENE	FL
EPA 8260 C	TRICHLOROETHENE (TRICHLOROETHYLENE)	FL	EPA 8260 C	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	FL
EPA 8260 C	VINYL ACETATE	FL	EPA 8260 C	VINYL CHLORIDE	FL
EPA 8260 C	XYLENE (TOTAL)	FL	EPA 8260 C - EXTENDED	1,1,2-TRICHLORO-1,2,2-TRIFLUORO ETHANE (FREON 113)	FL
EPA 8260 C - EXTENDED	CYCLOHEXANONE	FL	EPA 8260 C - EXTENDED	DIISOPROPYLETHER (DIPE, ISOPROPYL ETHER)	FL
EPA 8260 C - EXTENDED	DICHLOROFLUOROMETHANE (FREON 21)	FL	EPA 8260 C - EXTENDED	METHYL ACETATE	FL
EPA 8260 C - EXTENDED	N-HEPTANE	FL	EPA 8260 C - EXTENDED	N-HEXANE	FL
EPA 8260 C - EXTENDED	TETRAHYDROFURAN (THF)	FL	EPA 8270 C	1,2,4,5-TETRACHLOROBENZENE	FL
EPA 8270 C	1,2,4-TRICHLOROBENZENE	FL	EPA 8270 C	1,2-DICHLOROBENZENE	FL

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EPA 8270 C	1,2-DINITROBENZENE	FL	EPA 8270 C	1,2-DIPHENYLHYDRAZINE	FL
EPA 8270 C	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL	EPA 8270 C	1,3-DICHLOROBENZENE	FL
EPA 8270 C	1,3-DINITROBENZENE (1,3-DNB)	FL	EPA 8270 C	1,4-DICHLOROBENZENE	FL
EPA 8270 C	1,4-DINITROBENZENE	FL	EPA 8270 C	1,4-NAPHTHOQUINONE	FL
EPA 8270 C	1,4-PHENYLENEDIAMINE	FL	EPA 8270 C	1-NAPHTHYLAMINE	FL
EPA 8270 C	2,3,4,6-TETRACHLOROPHENOL	FL	EPA 8270 C	2,4,5-TRICHLOROPHENOL	FL
EPA 8270 C	2,4,6-TRICHLOROPHENOL	FL	EPA 8270 C	2,4-DICHLOROPHENOL	FL
EPA 8270 C	2,4-DIMETHYLPHENOL	FL	EPA 8270 C	2,4-DINITROPHENOL	FL
EPA 8270 C	2,4-DINITROTOLUENE (2,4-DNT)	FL	EPA 8270 C	2,6-DICHLOROPHENOL	FL
EPA 8270 C	2,6-DINITROTOLUENE (2,6-DNT)	FL	EPA 8270 C	2-ACETYLAMINOFLUORENE	FL
EPA 8270 C	2-CHLORONAPHTHALENE	FL	EPA 8270 C	2-CHLOROPHENOL	FL
EPA 8270 C	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	FL	EPA 8270 C	2-METHYLNAPHTHALENE	FL
EPA 8270 C	2-METHYLPHENOL (O-CRESOL)	FL	EPA 8270 C	2-NAPHTHYLAMINE	FL
EPA 8270 C	2-NITROANILINE	FL	EPA 8270 C	2-NITROPHENOL	FL
EPA 8270 C	2-PICOLINE (2-METHYLPYRIDINE)	FL	EPA 8270 C	3,3'-DICHLOROBENZIDINE	FL
EPA 8270 C	3,3'-DIMETHYLBENZIDINE	FL	EPA 8270 C	3-METHYLCHOLANTHRENE	FL
EPA 8270 C	3-NITROANILINE	FL	EPA 8270 C	4,4'-METHYLENEBIS(2-CHLOROANILINE)	FL
EPA 8270 C	4-AMINOBIPHENYL	FL	EPA 8270 C	4-BROMOPHENYL PHENYL ETHER	FL
EPA 8270 C	4-CHLORO-3-METHYLPHENOL	FL	EPA 8270 C	4-CHLOROANILINE	FL
EPA 8270 C	4-CHLOROPHENYL PHENYLETHER	FL	EPA 8270 C	4-DIMETHYL AMINOAZOBENZENE	FL
EPA 8270 C	4-NITROANILINE	FL	EPA 8270 C	4-NITROPHENOL	FL
EPA 8270 C	5-NITRO-O-TOLUIDINE	FL	EPA 8270 C	7,12-DIMETHYLBENZ(A) ANTHRACENE	FL
EPA 8270 C	A-A-DIMETHYLPHENETHYLAMINE	FL	EPA 8270 C	ACENAPHTHENE	FL
EPA 8270 C	ACENAPHTHYLENE	FL	EPA 8270 C	ACETOPHENONE	FL
EPA 8270 C	ANILINE	FL	EPA 8270 C	ANTHRACENE	FL
EPA 8270 C	ARAMITE	FL	EPA 8270 C	BENZIDINE	FL
EPA 8270 C	BENZO(A)ANTHRACENE	FL	EPA 8270 C	BENZO(A)PYRENE	FL
EPA 8270 C	BENZO(B)FLUORANTHENE	FL	EPA 8270 C	BENZO(G,H,I)PERYLENE	FL
EPA 8270 C	BENZO(K)FLUORANTHENE	FL	EPA 8270 C	BENZOIC ACID	FL
EPA 8270 C	BENZYL ALCOHOL	FL	EPA 8270 C	BIS(2-CHLOROETHOXY)METHANE	FL
EPA 8270 C	BIS(2-CHLOROETHYL) ETHER	FL	EPA 8270 C	BIS(2-CHLOROISOPROPYL) ETHER	FL
EPA 8270 C	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE), (DEHP)	FL	EPA 8270 C	BUTYL BENZYL PHTHALATE	FL
EPA 8270 C	CHLOROBENZILATE	FL	EPA 8270 C	CHRYSENE	FL
EPA 8270 C	DI-N-BUTYL PHTHALATE	FL	EPA 8270 C	DI-N-OCTYL PHTHALATE	FL
EPA 8270 C	DIALLATE	FL	EPA 8270 C	DIBENZO(A,H) ANTHRACENE	FL

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8270 C	DIBENZOFURAN	FL
EPA 8270 C	DIMETHOATE	FL
EPA 8270 C	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	FL
EPA 8270 C	DISULFOTON	FL
EPA 8270 C	FAMPHUR	FL
EPA 8270 C	FLUORENE	FL
EPA 8270 C	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA 8270 C	HEXACHLOROETHANE	FL
EPA 8270 C	INDENO(1,2,3-CD) PYRENE	FL
EPA 8270 C	ISOPHORONE	FL
EPA 8270 C	METHAPYRILENE	FL
EPA 8270 C	METHYL PARATHION (PARATHION, METHYL)	FL
EPA 8270 C	N-NITROSODI-N-PROPYLAMINE	FL
EPA 8270 C	N-NITROSODIMETHYLAMINE	FL
EPA 8270 C	N-NITROSOMETHYLETHYLAMINE	FL
EPA 8270 C	N-NITROSOPIPERIDINE	FL
EPA 8270 C	NAPHTHALENE	FL
EPA 8270 C	NITROQUINOLINE-1-OXIDE	FL
EPA 8270 C	O-TOLUIDINE (2-METHYLANILINE)	FL
EPA 8270 C	PENTACHLOROBENZENE	FL
EPA 8270 C	PENTACHLOROPHENOL	FL
EPA 8270 C	PHENANTHRENE	FL
EPA 8270 C	PHORATE	FL
EPA 8270 C	PYRENE	FL
EPA 8270 C	SAFROLE	FL
EPA 8270 C	THIONAZIN (ZINOPHOS)	FL
EPA 8270 C - EXTENDED	1,4-DIOXANE (1,4-DIETHYLENEOXIDE)	FL
EPA 8270 C - EXTENDED	2,3,5,6-TETRACHLOROPHENOL	FL
EPA 8270 C - EXTENDED	ATRAZINE	FL
EPA 8270 C - EXTENDED	CAPROLACTAM	FL
EPA 8270 C - EXTENDED	INDENE	FL
EPA 8270 D	1,2,4-TRICHLOROBENZENE	FL
EPA 8270 D	1,2-DINITROBENZENE	FL
EPA 8270 C	DIETHYL PHTHALATE	FL
EPA 8270 C	DIMETHYL PHTHALATE	FL
EPA 8270 C	DIPHENYLAMINE	FL
EPA 8270 C	ETHYL METHANESULFONATE	FL
EPA 8270 C	FLUORANTHENE	FL
EPA 8270 C	HEXACHLOROBENZENE	FL
EPA 8270 C	HEXACHLOROCYCLOPENTADIENE	FL
EPA 8270 C	HEXACHLOROPROPENE	FL
EPA 8270 C	ISODRIN	FL
EPA 8270 C	ISOSAFROLE	FL
EPA 8270 C	METHYL METHANESULFONATE	FL
EPA 8270 C	N-NITROSO-DI-N-BUTYLAMINE	FL
EPA 8270 C	N-NITROSODIETHYLAMINE	FL
EPA 8270 C	N-NITROSODIPHENYLAMINE	FL
EPA 8270 C	N-NITROSOMORPHOLINE	FL
EPA 8270 C	N-NITROSOPYRROLIDINE	FL
EPA 8270 C	NITROBENZENE	FL
EPA 8270 C	O,O,O-TRIETHYL PHOSPHOROTHIOATE	FL
EPA 8270 C	PARATHION (PARATHION - ETHYL)	FL
EPA 8270 C	PENTACHLORONITROBENZENE	FL
EPA 8270 C	PHENACETIN	FL
EPA 8270 C	PHENOL	FL
EPA 8270 C	PRONAMIDE (KERB)	FL
EPA 8270 C	PYRIDINE	FL
EPA 8270 C	SULFOTEPP (TETRAETHYL DITHIOPYROPHOSPHATE)	FL
EPA 8270 C - EXTENDED	1,1-BIPHENYL	FL
EPA 8270 C - EXTENDED	1-METHYLNAPHTHALENE	FL
EPA 8270 C - EXTENDED	3+4-METHYL PHENOL (M+P CRESOL)	FL
EPA 8270 C - EXTENDED	BENZALDEHYDE	FL
EPA 8270 C - EXTENDED	CARBAZOLE	FL
EPA 8270 D	1,2,4,5-TETRACHLOROBENZENE	FL
EPA 8270 D	1,2-DICHLOROBENZENE	FL
EPA 8270 D	1,2-DIPHENYLHYDRAZINE	FL

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 6440

Testamerica Laboratories, Inc.
4101 Shuffel Street Nw
North Canton, OH 44720

Virginia Laboratory ID: 460175
Effective Date: September 15, 2014
Expiration Date: September 14, 2015

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8270 D	1,3,5-TRINITROBENZENE (1,3,5-TNB)	FL	EPA 8270 D	1,3-DICHLOROBENZENE	FL
EPA 8270 D	1,3-DINITROBENZENE (1,3-DNB)	FL	EPA 8270 D	1,4-DICHLOROBENZENE	FL
EPA 8270 D	1,4-DINITROBENZENE	FL	EPA 8270 D	1,4-NAPHTHOQUINONE	FL
EPA 8270 D	1,4-PHENYLENEDIAMINE	FL	EPA 8270 D	1-NAPHTHYLAMINE	FL
EPA 8270 D	2,3,4,6-TETRACHLOROPHENOL	FL	EPA 8270 D	2,4,5-TRICHLOROPHENOL	FL
EPA 8270 D	2,4,6-TRICHLOROPHENOL	FL	EPA 8270 D	2,4-DICHLOROPHENOL	FL
EPA 8270 D	2,4-DIMETHYLPHENOL	FL	EPA 8270 D	2,4-DINITROPHENOL	FL
EPA 8270 D	2,4-DINITROTOLUENE (2,4-DNT)	FL	EPA 8270 D	2,6-DICHLOROPHENOL	FL
EPA 8270 D	2,6-DINITROTOLUENE (2,6-DNT)	FL	EPA 8270 D	2-ACETYLAMINOFLUORENE	FL
EPA 8270 D	2-CHLORONAPHTHALENE	FL	EPA 8270 D	2-CHLOROPHENOL	FL
EPA 8270 D	2-METHYL-4,6-DINITROPHENOL (4,6-DINITRO-2-METHYLPHENOL)	FL	EPA 8270 D	2-METHYLNAPHTHALENE	FL
EPA 8270 D	2-METHYLPHENOL (O-CRESOL)	FL	EPA 8270 D	2-NAPHTHYLAMINE	FL
EPA 8270 D	2-NITROANILINE	FL	EPA 8270 D	2-NITROPHENOL	FL
EPA 8270 D	2-PICOLINE (2-METHYLPYRIDINE)	FL	EPA 8270 D	3,3'-DICHLOROBENZIDINE	FL
EPA 8270 D	3,3'-DIMETHYLBENZIDINE	FL	EPA 8270 D	3-METHYLCHOLANTHRENE	FL
EPA 8270 D	3-NITROANILINE	FL	EPA 8270 D	4,4'-METHYLENEBIS(2-CHLOROANILINE)	FL
EPA 8270 D	4-AMINOBIPHENYL	FL	EPA 8270 D	4-BROMOPHENYL PHENYL ETHER	FL
EPA 8270 D	4-CHLORO-3-METHYLPHENOL	FL	EPA 8270 D	4-CHLOROANILINE	FL
EPA 8270 D	4-CHLOROPHENYL PHENYLETHER	FL	EPA 8270 D	4-DIMETHYL AMINOAZOBENZENE	FL
EPA 8270 D	4-NITROANILINE	FL	EPA 8270 D	4-NITROPHENOL	FL
EPA 8270 D	5-NITRO-O-TOLUIDINE	FL	EPA 8270 D	7,12-DIMETHYLBENZ(A) ANTHRACENE	FL
EPA 8270 D	A-A-DIMETHYLPHENETHYLAMINE	FL	EPA 8270 D	ACENAPHTHENE	FL
EPA 8270 D	ACENAPHTHYLENE	FL	EPA 8270 D	ACETOPHENONE	FL
EPA 8270 D	ANILINE	FL	EPA 8270 D	ANTHRACENE	FL
EPA 8270 D	ARAMITE	FL	EPA 8270 D	BENZIDINE	FL
EPA 8270 D	BENZO(A)ANTHRACENE	FL	EPA 8270 D	BENZO(A)PYRENE	FL
EPA 8270 D	BENZO(B)FLUORANTHENE	FL	EPA 8270 D	BENZO(G,H,I)PERYLENE	FL
EPA 8270 D	BENZO(K)FLUORANTHENE	FL	EPA 8270 D	BENZOIC ACID	FL
EPA 8270 D	BENZYL ALCOHOL	FL	EPA 8270 D	BIS(2-CHLOROETHOXY)METHANE	FL
EPA 8270 D	BIS(2-CHLOROETHYL) ETHER	FL	EPA 8270 D	BIS(2-CHLOROISOPROPYL) ETHER	FL
EPA 8270 D	BIS(2-ETHYLHEXYL) PHTHALATE (DI(2-ETHYLHEXYL)PHTHALATE) (DEHP)	FL	EPA 8270 D	BUTYL BENZYL PHTHALATE	FL
EPA 8270 D	CHLOROBENZILATE	FL	EPA 8270 D	CHRYSENE	FL
EPA 8270 D	DI-N-BUTYL PHTHALATE	FL	EPA 8270 D	DI-N-OCTYL PHTHALATE	FL
EPA 8270 D	DIALLATE	FL	EPA 8270 D	DIBENZO(A,H) ANTHRACENE	FL
EPA 8270 D	DIBENZOFURAN	FL	EPA 8270 D	DIETHYL PHTHALATE	FL

Commonwealth of Virginia

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Virginia Laboratory ID: 460175
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Expiration Date: September 14, 2015

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 8270 D	DIMETHOATE	FL	EPA 8270 D	DIMETHYL PHTHALATE	FL
EPA 8270 D	DINOSEB (2-SEC-BUTYL-4,6-DINITROPHENOL, DNBP)	FL	EPA 8270 D	DIPHENYLAMINE	FL
EPA 8270 D	DISULFOTON	FL	EPA 8270 D	ETHYL METHANESULFONATE	FL
EPA 8270 D	FAMPHUR	FL	EPA 8270 D	FLUORANTHENE	FL
EPA 8270 D	FLUORENE	FL	EPA 8270 D	HEXACHLOROBENZENE	FL
EPA 8270 D	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL	EPA 8270 D	HEXACHLOROCYCLOPENTADIENE	FL
EPA 8270 D	HEXACHLOROETHANE	FL	EPA 8270 D	HEXACHLOROPROPENE	FL
EPA 8270 D	INDENO(1,2,3-CD) PYRENE	FL	EPA 8270 D	ISODRIN	FL
EPA 8270 D	ISOPHORONE	FL	EPA 8270 D	ISOSAFROLE	FL
EPA 8270 D	METHAPYRILENE	FL	EPA 8270 D	METHYL METHANESULFONATE	FL
EPA 8270 D	METHYL PARATHION (PARATHION, METHYL)	FL	EPA 8270 D	N-NITROSO-DI-N-BUTYLAMINE	FL
EPA 8270 D	N-NITROSODI-N-PROPYLAMINE	FL	EPA 8270 D	N-NITROSODIETHYLAMINE	FL
EPA 8270 D	N-NITROSODIMETHYLAMINE	FL	EPA 8270 D	N-NITROSODIPHENYLAMINE	FL
EPA 8270 D	N-NITROSOMETHYLETHYLAMINE	FL	EPA 8270 D	N-NITROSOMORPHOLINE	FL
EPA 8270 D	N-NITROSOPIPERIDINE	FL	EPA 8270 D	N-NITROSOPYRROLIDINE	FL
EPA 8270 D	NAPHTHALENE	FL	EPA 8270 D	NITROBENZENE	FL
EPA 8270 D	NITROQUINOLINE-1-OXIDE	FL	EPA 8270 D	O,O,O-TRIETHYL PHOSPHOROTHIOATE	FL
EPA 8270 D	O-TOLUIDINE (2-METHYLANILINE)	FL	EPA 8270 D	PARATHION (PARATHION - ETHYL)	FL
EPA 8270 D	PENTACHLOROBENZENE	FL	EPA 8270 D	PENTACHLORONITROBENZENE	FL
EPA 8270 D	PENTACHLOROPHENOL	FL	EPA 8270 D	PHENACETIN	FL
EPA 8270 D	PHENANTHRENE	FL	EPA 8270 D	PHENOL	FL
EPA 8270 D	PHORATE	FL	EPA 8270 D	PRONAMIDE (KERB)	FL
EPA 8270 D	PYRENE	FL	EPA 8270 D	SAFROLE	FL
EPA 8270 D	SULFOTEPP (TETRAETHYL DITHIOPYROPHOSPHATE)	FL	EPA 8270 D	THIONAZIN (ZINOPHOS)	FL
EPA 8270 D - EXTENDED	1,1-BIPHENYL	FL	EPA 8270 D - EXTENDED	1,4-DIOXANE (1,4-DIETHYLENEOXIDE)	FL
EPA 8270 D - EXTENDED	1-METHYLNAPHTHALENE	FL	EPA 8270 D - EXTENDED	2,3,5,6-TETRACHLOROPHENOL	FL
EPA 8270 D - EXTENDED	3+4-METHYL PHENOL (M+P CRESOL)	FL	EPA 8270 D - EXTENDED	ATRAZINE	FL
EPA 8270 D - EXTENDED	BENZALDEHYDE	FL	EPA 8270 D - EXTENDED	CAPROLACTAM	FL
EPA 8270 D - EXTENDED	CARBAZOLE	FL	EPA 8270 D - EXTENDED	INDENE	FL
EPA 8270 D - EXTENDED	PYRIDINE	FL	EPA 8315 A	FORMALDEHYDE	FL
EPA 9012 A	CYANIDE	FL	EPA 9023	EXTRACTABLE ORGANIC HALIDES (EOX)	FL
EPA 9030 A	TOTAL SULFIDES	FL	EPA 9034	TOTAL SULFIDES	FL
EPA 9040 B	PH	FL	EPA 9041 A	PH	FL

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 6440

Testamerica Laboratories, Inc.
4101 Shuffel Street Nw
North Canton, OH 44720

Virginia Laboratory ID: 460175
Effective Date: September 15, 2014
Expiration Date: September 14, 2015

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY	METHOD	ANALYTE	PRIMARY
EPA 9045 C	PH	FL	EPA 9056 A	BROMIDE	FL
EPA 9056 A	CHLORIDE	FL	EPA 9056 A	FLUORIDE	FL
EPA 9056 A	NITRATE AS N	FL	EPA 9056 A	NITRITE	FL
EPA 9056 A	ORTHOPHOSPHATE AS P	FL	EPA 9056 A	SULFATE	FL
EPA 9065	TOTAL PHENOLICS	FL	EPA 9095 B	FREE LIQUID	FL

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF GENERAL SERVICES
DIVISION OF CONSOLIDATED LABORATORY SERVICES

Certifies that

VA Laboratory ID#: 460176
Testamerica Laboratories Inc.- Knoxville

5815 Middlebrook Pike
Knoxville, TN 37921

Owner: TESTAMERICA HOLDINGS INC.
Operator: TESTAMERICA LABORATORIES INC. - KNOXVILLE
Responsible Official: CHRIS RIGELL

Having met the requirements of 1 VAC 30-46
and the National Environmental Laboratory Accreditation Conference 2003 Standard
is hereby approved as an

Accredited Laboratory

As more fully described in the attached Scope of Accreditation

Effective Date: **January 20, 2015**
Expiration Date: **September 14, 2015**
Certificate # 7618

Denise M. Toney

Denise M. Toney, Ph.D., HCLD
DGS Deputy Director for Laboratories

Continued accreditation status depends on successful ongoing participation in the program.
Certificate to be conspicuously displayed at the laboratory.
Not valid unless accompanied by a valid Virginia Environmental Laboratory Accreditation Program (VELAP) Scope of Accreditation.
Customers are urged to verify the laboratory's current accreditation status.

Certificate Not Transferable

Surrender Upon Revocation

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 7618

Testamerica Laboratories Inc.- Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Virginia Laboratory ID: 460176
Effective Date: January 20, 2015
Expiration Date: September 14, 2015

AIR

METHOD	ANALYTE	PRIMARY
EPA 23	1,2,3,4,6,7,8,9-OCTACHLORODIBENZ O-P-DIOXIN (OCDD)	LA DEQ
EPA 23	1,2,3,4,6,7,8-HEPTACHLORODIBENZ O-P-DIOXIN (1,2,3,4,6,7,8-HPCDD)	LA DEQ
EPA 23	1,2,3,4,7,8,9-HEPTACHLORODIBENZ OFURAN (1,2,3,4,7,8,9-HPCDF)	LA DEQ
EPA 23	1,2,3,4,7,8-HEXACHLORODIBENZOF URAN (1,2,3,4,7,8-HXCDF)	LA DEQ
EPA 23	1,2,3,6,7,8-HEXACHLORODIBENZOF URAN (1,2,3,6,7,8-HXCDF)	LA DEQ
EPA 23	1,2,3,7,8,9-HEXACHLORODIBENZOF URAN (1,2,3,7,8,9-HXCDF)	LA DEQ
EPA 23	1,2,3,7,8-PENTACHLORODIBENZOF URAN (1,2,3,7,8-PECDF)	LA DEQ
EPA 23	2,3,4,7,8-PENTACHLORODIBENZOF URAN	LA DEQ
EPA 23	2,3,7,8-TETRACHLORODIBENZOFUR AN (2,3,7,8-TCDF)	LA DEQ
EPA 29 (ICP-AES)	ANTIMONY	FL
EPA 29 (ICP-AES)	BARIUM	FL
EPA 29 (ICP-AES)	CADMIUM	FL
EPA 29 (ICP-AES)	COBALT	FL
EPA 29 (ICP-AES)	LEAD	FL
EPA 29 (ICP-AES)	NICKEL	FL
EPA 29 (ICP-AES)	SELENIUM	FL
EPA 29 (ICP-AES)	THALLIUM	FL
EPA 5	PARTICULATE MATTER	FL
EPA 6010 C	BERYLLIUM	LA DEQ
EPA 6010 C	CHROMIUM	LA DEQ
EPA 8270 C	2,4-DINITROTOLUENE (2,4-DNT)	LA DEQ
EPA 8290 A	1,2,3,4,6,7,8,9-OCTACHLORODIBENZ O-P-DIOXIN (OCDD)	LA DEQ
EPA 8290 A	1,2,3,4,6,7,8-HEPTACHLORODIBENZ O-P-DIOXIN (1,2,3,4,6,7,8-HPCDD)	LA DEQ
EPA 8290 A	1,2,3,4,7,8,9-HEPTACHLORODIBENZ OFURAN (1,2,3,4,7,8,9-HPCDF)	LA DEQ
EPA 8290 A	1,2,3,4,7,8-HEXACHLORODIBENZOF URAN (1,2,3,4,7,8-HXCDF)	LA DEQ
EPA 8290 A	1,2,3,6,7,8-HEXACHLORODIBENZOF URAN (1,2,3,6,7,8-HXCDF)	LA DEQ
EPA 8290 A	1,2,3,7,8,9-HEXACHLORODIBENZOF URAN (1,2,3,7,8,9-HXCDF)	LA DEQ
EPA 8290 A	1,2,3,7,8-PENTACHLORODIBENZOF URAN (1,2,3,7,8-PECDF)	LA DEQ
EPA 8290 A	2,3,4,7,8-PENTACHLORODIBENZOF URAN	LA DEQ
EPA 23	1,2,3,4,6,7,8,9-OCTACHLORODIBENZ OFURAN (OCDF)	LA DEQ
EPA 23	1,2,3,4,6,7,8-HEPTACHLORODIBENZ OFURAN (1,2,3,4,6,7,8-HPCDF)	LA DEQ
EPA 23	1,2,3,4,7,8-HEXACHLORODIBENZO-P -DIOXIN (1,2,3,4,7,8-HXCDD)	LA DEQ
EPA 23	1,2,3,6,7,8-HEXACHLORODIBENZO-P -DIOXIN(1,2,3,6,7,8-HXCDD)	LA DEQ
EPA 23	1,2,3,7,8,9-HEXACHLORODIBENZO-P -DIOXIN (1,2,3,7,8,9-HXCDD)	LA DEQ
EPA 23	1,2,3,7,8-PENTACHLORODIBENZO-P -DIOXIN (1,2,3,7,8-PECDD)	LA DEQ
EPA 23	2,3,4,6,7,8-HEXACHLORODIBENZOF URAN (2,3,4,6,7,8-HXCDF)	LA DEQ
EPA 23	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (2,3,7,8-TCDD)	LA DEQ
EPA 29 (CVAAS)	MERCURY	FL
EPA 29 (ICP-AES)	ARSENIC	FL
EPA 29 (ICP-AES)	BERYLLIUM	FL
EPA 29 (ICP-AES)	CHROMIUM	FL
EPA 29 (ICP-AES)	COPPER	FL
EPA 29 (ICP-AES)	MANGANESE	FL
EPA 29 (ICP-AES)	PHOSPHORUS	FL
EPA 29 (ICP-AES)	SILVER	FL
EPA 29 (ICP-AES)	ZINC	FL
EPA 6010 C	ARSENIC	LA DEQ
EPA 6010 C	CADMIUM	LA DEQ
EPA 6010 C	LEAD	LA DEQ
EPA 8270 C	DIPHENYLAMINE	LA DEQ
EPA 8290 A	1,2,3,4,6,7,8,9-OCTACHLORODIBENZ OFURAN (OCDF)	LA DEQ
EPA 8290 A	1,2,3,4,6,7,8-HEPTACHLORODIBENZ OFURAN (1,2,3,4,6,7,8-HPCDF)	LA DEQ
EPA 8290 A	1,2,3,4,7,8-HEXACHLORODIBENZO-P -DIOXIN (1,2,3,4,7,8-HXCDD)	LA DEQ
EPA 8290 A	1,2,3,6,7,8-HEXACHLORODIBENZO-P -DIOXIN(1,2,3,6,7,8-HXCDD)	LA DEQ
EPA 8290 A	1,2,3,7,8,9-HEXACHLORODIBENZO-P -DIOXIN (1,2,3,7,8,9-HXCDD)	LA DEQ
EPA 8290 A	1,2,3,7,8-PENTACHLORODIBENZO-P -DIOXIN (1,2,3,7,8-PECDD)	LA DEQ
EPA 8290 A	2,3,4,6,7,8-HEXACHLORODIBENZOF URAN (2,3,4,6,7,8-HXCDF)	LA DEQ
EPA 8290 A	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (2,3,7,8-TCDD)	LA DEQ

Scope of Accreditation

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Testamerica Laboratories Inc.- Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Virginia Laboratory ID: 460176
Effective Date: January 20, 2015
Expiration Date: September 14, 2015

AIR

METHOD	ANALYTE	PRIMARY
EPA 8290 A	2,3,7,8-TETRACHLORODIBENZOFURAN (2,3,7,8-TCDF)	LA DEQ
EPA 8290 A - EXTENDED	TOTAL HEPTACHLORODIBENZOFURAN (HPCDF, TOTAL)	LA DEQ
EPA 8290 A - EXTENDED	TOTAL HEXACHLORODIBENZOFURAN (HXCDF, TOTAL)	LA DEQ
EPA 8290 A - EXTENDED	TOTAL PENTACHLORODIBENZOFURAN (PECDF, TOTAL)	LA DEQ
EPA 8290 A - EXTENDED	TOTAL TETRACHLORODIBENZOFURAN (TCDF, TOTAL)	LA DEQ
EPA TO-10A (GC/MS)	AROCLOR-1254 (PCB-1254)	FL
EPA TO-13A REV 2	ACENAPHTHENE	FL
EPA TO-13A REV 2	ANTHRACENE	FL
EPA TO-13A REV 2	BENZO(A)PYRENE	FL
EPA TO-13A REV 2	BENZO(G,H,I)PERYLENE	FL
EPA TO-13A REV 2	CHRYSENE	FL
EPA TO-13A REV 2	FLUORANTHENE	FL
EPA TO-13A REV 2	INDENO(1,2,3-CD) PYRENE	FL
EPA TO-13A REV 2	PHENANTHRENE	FL
EPA TO-14A REV 2	1,1,1-TRICHLOROETHANE	FL
EPA TO-14A REV 2	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE (FREON 113)	FL
EPA TO-14A REV 2	1,1-DICHLOROETHANE	FL
EPA TO-14A REV 2	1,2,4-TRICHLOROBENZENE	FL
EPA TO-14A REV 2	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	FL
EPA TO-14A REV 2	1,2-DICHLOROBENZENE	FL
EPA TO-14A REV 2	1,2-DICHLOROPROPANE	FL
EPA TO-14A REV 2	1,3-DICHLOROBENZENE	FL
EPA TO-14A REV 2	BENZENE	FL
EPA TO-14A REV 2	CARBON TETRACHLORIDE	FL
EPA TO-14A REV 2	CHLOROETHANE (ETHYL CHLORIDE)	FL
EPA TO-14A REV 2	CIS-1,2-DICHLOROETHYLENE	FL
EPA TO-14A REV 2	DICHLORODIFLUOROMETHANE (FREON-12)	FL
EPA TO-14A REV 2	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA TO-14A REV 2	METHYL CHLORIDE (CHLOROMETHANE)	FL
EPA 8290 A - EXTENDED	TOTAL HEPTACHLORODIBENZO-P-DIOXIN (HPCDD, TOTAL)	LA DEQ
EPA 8290 A - EXTENDED	TOTAL HEXACHLORODIBENZO-P-DIOXIN (HXCDD, TOTAL)	LA DEQ
EPA 8290 A - EXTENDED	TOTAL PENTACHLORODIBENZO-P-DIOXIN (PECDD, TOTAL)	LA DEQ
EPA 8290 A - EXTENDED	TOTAL TETRACHLORODIBENZO-P-DIOXIN (TCDD, TOTAL)	LA DEQ
EPA TO-10A (GC/MS)	AROCLOR-1242 (PCB-1242)	FL
EPA TO-10A (GC/MS)	AROCLOR-1260 (PCB-1260)	FL
EPA TO-13A REV 2	ACENAPHTHYLENE	FL
EPA TO-13A REV 2	BENZO(A)ANTHRACENE	FL
EPA TO-13A REV 2	BENZO(B)FLUORANTHENE	FL
EPA TO-13A REV 2	BENZO(K)FLUORANTHENE	FL
EPA TO-13A REV 2	DIBENZO(A,H) ANTHRACENE	FL
EPA TO-13A REV 2	FLUORENE	FL
EPA TO-13A REV 2	NAPHTHALENE	FL
EPA TO-13A REV 2	PYRENE	FL
EPA TO-14A REV 2	1,1,2,2-TETRACHLOROETHANE	FL
EPA TO-14A REV 2	1,1,2-TRICHLOROETHANE	FL
EPA TO-14A REV 2	1,1-DICHLOROETHYLENE	FL
EPA TO-14A REV 2	1,2,4-TRIMETHYLBENZENE	FL
EPA TO-14A REV 2	1,2-DICHLORO-1,1,2,2-TETRAFLUOROETHANE (FREON-114)	FL
EPA TO-14A REV 2	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	FL
EPA TO-14A REV 2	1,3,5-TRIMETHYLBENZENE	FL
EPA TO-14A REV 2	1,4-DICHLOROBENZENE	FL
EPA TO-14A REV 2	BENZYL CHLORIDE	FL
EPA TO-14A REV 2	CHLOROBENZENE	FL
EPA TO-14A REV 2	CHLOROFORM	FL
EPA TO-14A REV 2	CIS-1,3-DICHLOROPROPENE	FL
EPA TO-14A REV 2	ETHYLBENZENE	FL
EPA TO-14A REV 2	METHYL BROMIDE (BROMOMETHANE)	FL
EPA TO-14A REV 2	METHYLENE CHLORIDE (DICHLOROMETHANE)	FL

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Knoxville, TN 37921

Virginia Laboratory ID: 460176
Effective Date: January 20, 2015
Expiration Date: September 14, 2015

AIR

METHOD	ANALYTE	PRIMARY
EPA TO-14A REV 2	O-XYLENE	FL
EPA TO-14A REV 2	TETRACHLOROETHENE (PERCHLOROETHENE)	FL
EPA TO-14A REV 2	TRANS-1,3-DICHLOROPROPENE	FL
EPA TO-14A REV 2	TRICHLOROFLUOROMETHANE (FLUOROTRICHLOROMETHANE, FREON 11)	FL
EPA TO-14A REV 2 - EXTENDED	XYLENE (TOTAL)	FL
EPA TO-15	1,1,2,2-TETRACHLOROETHANE	FL
EPA TO-15	1,1-DICHLOROETHANE	FL
EPA TO-15	1,2,4-TRICHLOROBENZENE	FL
EPA TO-15	1,2-DICHLOROBENZENE	FL
EPA TO-15	1,2-DICHLOROPROPANE	FL
EPA TO-15	1,3-DICHLOROBENZENE	FL
EPA TO-15	2,2,4-TRIMETHYLPENTANE	FL
EPA TO-15	4-METHYL-2-PENTANONE (MIBK)	FL
EPA TO-15	ACROLEIN (PROPENAL)	FL
EPA TO-15	ALLYL CHLORIDE (3-CHLOROPROPENE)	FL
EPA TO-15	BENZYL CHLORIDE	FL
EPA TO-15	CARBON DISULFIDE	FL
EPA TO-15	CHLOROBENZENE	FL
EPA TO-15	CHLOROFORM	FL
EPA TO-15	CIS-1,3-DICHLOROPROPENE	FL
EPA TO-15	HEXACHLOROBUTADIENE (1,3-HEXACHLOROBUTADIENE)	FL
EPA TO-15	METHYL BROMIDE (BROMOMETHANE)	FL
EPA TO-15	METHYL METHACRYLATE	FL
EPA TO-15	METHYLENE CHLORIDE (DICHLOROMETHANE)	FL
EPA TO-15	STYRENE	FL
EPA TO-15	TOLUENE	FL
EPA TO-15	TRANS-1,3-DICHLOROPROPENE	FL
EPA TO-15	VINYL ACETATE	FL
EPA TO-15	VINYL CHLORIDE	FL
EPA TO-4A REV 2	AROCLOR-1242 (PCB-1242)	FL
EPA TO-14A REV 2	STYRENE	FL
EPA TO-14A REV 2	TOLUENE	FL
EPA TO-14A REV 2	TRICHLOROETHENE (TRICHLOROETHYLENE)	FL
EPA TO-14A REV 2	VINYL CHLORIDE	FL
EPA TO-15	1,1,1-TRICHLOROETHANE	FL
EPA TO-15	1,1,2-TRICHLOROETHANE	FL
EPA TO-15	1,1-DICHLOROETHYLENE	FL
EPA TO-15	1,2-DIBROMOETHANE (EDB, ETHYLENE DIBROMIDE)	FL
EPA TO-15	1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)	FL
EPA TO-15	1,3-BUTADIENE	FL
EPA TO-15	1,4-DICHLOROBENZENE	FL
EPA TO-15	2-BUTANONE (METHYL ETHYL KETONE, MEK)	FL
EPA TO-15	ACETONITRILE	FL
EPA TO-15	ACRYLONITRILE	FL
EPA TO-15	BENZENE	FL
EPA TO-15	BROMOFORM	FL
EPA TO-15	CARBON TETRACHLORIDE	FL
EPA TO-15	CHLOROETHANE (ETHYL CHLORIDE)	FL
EPA TO-15	CIS-1,2-DICHLOROETHYLENE	FL
EPA TO-15	ETHYLBENZENE	FL
EPA TO-15	ISOPROPYLBENZENE	FL
EPA TO-15	METHYL CHLORIDE (CHLOROMETHANE)	FL
EPA TO-15	METHYL TERT-BUTYL ETHER (MTBE)	FL
EPA TO-15	N-HEXANE	FL
EPA TO-15	TETRACHLOROETHENE (PERCHLOROETHENE)	FL
EPA TO-15	TRANS-1,2-DICHLOROETHENE	FL
EPA TO-15	TRICHLOROETHENE (TRICHLOROETHYLENE)	FL
EPA TO-15	VINYL BROMIDE (BROMOETHANE)	FL
EPA TO-15	XYLENE (TOTAL)	FL
EPA TO-4A REV 2	AROCLOR-1254 (PCB-1254)	FL

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METHOD	ANALYTE	PRIMARY
EPA TO-4A REV 2	AROCLOR-1260 (PCB-1260)	FL
EPA TO-4A REV 2 - EXTENDED	AROCLOR-1221 (PCB-1221)	FL
EPA TO-4A REV 2 - EXTENDED	AROCLOR-1248 (PCB-1248)	FL
EPA TO-9A REV 2	1,2,3,4,6,7,8,9-OCTACHLORODIBENZOFURAN (OCDF)	FL
EPA TO-9A REV 2	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN (1,2,3,4,6,7,8-HPCDF)	FL
EPA TO-9A REV 2	1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN (1,2,3,4,7,8-HXCDD)	FL
EPA TO-9A REV 2	1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN(1,2,3,6,7,8-HXCDD)	FL
EPA TO-9A REV 2	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN (1,2,3,7,8,9-HXCDD)	FL
EPA TO-9A REV 2	1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN (1,2,3,7,8-PECDD)	FL
EPA TO-9A REV 2	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN (2,3,4,6,7,8-HXCDF)	FL
EPA TO-9A REV 2	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (2,3,7,8-TCDD)	FL
EPA TO-4A REV 2 - EXTENDED	AROCLOR-1016 (PCB-1016)	FL
EPA TO-4A REV 2 - EXTENDED	AROCLOR-1232 (PCB-1232)	FL
EPA TO-9A REV 2	1,2,3,4,6,7,8,9-OCTACHLORODIBENZO-P-DIOXIN (OCDD)	FL
EPA TO-9A REV 2	1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN (1,2,3,4,6,7,8-HPCDD)	FL
EPA TO-9A REV 2	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN (1,2,3,4,7,8,9-HPCDF)	FL
EPA TO-9A REV 2	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN (1,2,3,4,7,8-HXCDF)	FL
EPA TO-9A REV 2	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN (1,2,3,6,7,8-HXCDF)	FL
EPA TO-9A REV 2	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN (1,2,3,7,8,9-HXCDF)	FL
EPA TO-9A REV 2	1,2,3,7,8-PENTACHLORODIBENZOFURAN (1,2,3,7,8-PECDF)	FL
EPA TO-9A REV 2	2,3,4,7,8-PENTACHLORODIBENZOFURAN	FL
EPA TO-9A REV 2	2,3,7,8-TETRACHLORODIBENZOFURAN (2,3,7,8-TCDF)	FL

BIOLOGICAL TISSUE

METHOD	ANALYTE	PRIMARY
EPA 1613 B	1,2,3,4,6,7,8,9-OCTACHLORODIBENZO-P-DIOXIN (OCDD)	FL
EPA 1613 B	1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN (1,2,3,4,6,7,8-HPCDD)	FL
EPA 1613 B	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN (1,2,3,4,7,8,9-HPCDF)	FL
EPA 1613 B	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN (1,2,3,4,7,8-HXCDF)	FL
EPA 1613 B	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN (1,2,3,6,7,8-HXCDF)	FL
EPA 1613 B	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN (1,2,3,7,8,9-HXCDF)	FL
EPA 1613 B	1,2,3,7,8-PENTACHLORODIBENZOFURAN (1,2,3,7,8-PECDF)	FL
EPA 1613 B	2,3,4,7,8-PENTACHLORODIBENZOFURAN	FL
EPA 1613 B	2,3,7,8-TETRACHLORODIBENZOFURAN (2,3,7,8-TCDF)	FL
EPA 1668 A	2,2',3,3',4,4',5,5'-OCTACHLOROBIPHENYL (BZ-194)	FL
EPA 1668 A	2,2',3,3',4,4',5,6,6'-NONACHLOROBIPHENYL (BZ-207)	FL
EPA 1668 A	2,2',3,3',4,4',5-HEPTACHLOROBIPHENYL (BZ-170)	FL
EPA 1613 B	1,2,3,4,6,7,8,9-OCTACHLORODIBENZOFURAN (OCDF)	FL
EPA 1613 B	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN (1,2,3,4,6,7,8-HPCDF)	FL
EPA 1613 B	1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN (1,2,3,4,7,8-HXCDD)	FL
EPA 1613 B	1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN(1,2,3,6,7,8-HXCDD)	FL
EPA 1613 B	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN (1,2,3,7,8,9-HXCDD)	FL
EPA 1613 B	1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN (1,2,3,7,8-PECDD)	FL
EPA 1613 B	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN (2,3,4,6,7,8-HXCDF)	FL
EPA 1613 B	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (2,3,7,8-TCDD)	FL
EPA 1668 A	2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL (BZ-206)	FL
EPA 1668 A	2,2',3,3',4,4',5,6'-OCTACHLOROBIPHENYL (BZ-196)	FL
EPA 1668 A	2,2',3,3',4,4',5,6-OCTACHLOROBIPHENYL BZ-195)	FL
EPA 1668 A	2,2',3,3',4,4',6,6'-OCTACHLOROBIPHENYL (BZ-197)	FL

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METHOD	ANALYTE	PRIMARY
EPA 1668 A	2,2',3,3',4,5',6'-HEPTACHLOROBIPHENYL (BZ-177)	FL
EPA 1668 A	2,2',3,3',4,5',6-HEPTACHLOROBIPHENYL (BZ-175)	FL
EPA 1668 A	2,2',3,3',4,5,5',6,6'-NONACHLOROBIPHENYL (BZ-208)	FL
EPA 1668 A	2,2',3,3',4,5,6'-HEPTACHLOROBIPHENYL (BZ-174)	FL
EPA 1668 A	2,2',3,3',4,6'-HEXACHLOROBIPHENYL (BZ-132)	FL
EPA 1668 A	2,2',3,3',4,6-HEXACHLOROBIPHENYL (BZ-131)	FL
EPA 1668 A	2,2',3,3',5,5',6,6'-OCTACHLOROBIPHENYL (BZ-202)	FL
EPA 1668 A	2,2',3,3',5,5'-HEXACHLOROBIPHENYL (BZ-133)	FL
EPA 1668 A	2,2',3,3',6,6'-HEXACHLOROBIPHENYL (BZ-136)	FL
EPA 1668 A	2,2',3,4',5,5',6-HEPTACHLOROBIPHENYL (BZ-187)	FL
EPA 1668 A	2,2',3,4',5,6'-HEXACHLOROBIPHENYL (BZ-148)	FL
EPA 1668 A	2,2',3,4',6,6'-HEXACHLOROBIPHENYL (BZ-150)	FL
EPA 1668 A	2,2',3,4,4',5,5',6-OCTACHLOROBIPHENYL (BZ-203)	FL
EPA 1668 A	2,2',3,4,4',5,6,6'-OCTACHLOROBIPHENYL (BZ-204)	FL
EPA 1668 A	2,2',3,4,4',5-HEXACHLOROBIPHENYL (BZ-137)	FL
EPA 1668 A	2,2',3,4,5',6-HEXACHLOROBIPHENYL (BZ-144)	FL
EPA 1668 A	2,2',3,4,5,6,6'-HEPTACHLOROBIPHENYL (BZ-186)	FL
EPA 1668 A	2,2',3,4,6'-PENTACHLOROBIPHENYL (BZ-89)	FL
EPA 1668 A	2,2',3,5',6-PENTACHLOROBIPHENYL (BZ-95)	FL
EPA 1668 A	2,2',3,5,6'-PENTACHLOROBIPHENYL (BZ-94)	FL
EPA 1668 A	2,2',3,6'-TETRACHLOROBIPHENYL (BZ-46)	FL
EPA 1668 A	2,2',3-TRICHLOROBIPHENYL (BZ-16)	FL
EPA 1668 A	2,2',4,4',6,6'-HEXACHLOROBIPHENYL (BZ-155)	FL
EPA 1668 A	2,2',4,5-TETRACHLOROBIPHENYL (BZ-48)	FL
EPA 1668 A	2,2',4-TRICHLOROBIPHENYL (BZ-17)	FL
EPA 1668 A	2,2',3,3',4,5',6,6'-OCTACHLOROBIPHENYL (BZ-201)	FL
EPA 1668 A	2,2',3,3',4,5'-HEXACHLOROBIPHENYL (BZ-130)	FL
EPA 1668 A	2,2',3,3',4,5,5'-HEPTACHLOROBIPHENYL (BZ-172)	FL
EPA 1668 A	2,2',3,3',4,5,6,6'-OCTACHLOROBIPHENYL (BZ-200)	FL
EPA 1668 A	2,2',3,3',4,6,6'-HEPTACHLOROBIPHENYL (BZ-176)	FL
EPA 1668 A	2,2',3,3',4-PENTACHLOROBIPHENYL (BZ-82)	FL
EPA 1668 A	2,2',3,3',5,5',6-HEPTACHLOROBIPHENYL (BZ-178)	FL
EPA 1668 A	2,2',3,3',5,6,6'-HEPTACHLOROBIPHENYL (BZ-179)	FL
EPA 1668 A	2,2',3,3',6-PENTACHLOROBIPHENYL (BZ-84)	FL
EPA 1668 A	2,2',3,4',5,5'-HEXACHLOROBIPHENYL (BZ-146)	FL
EPA 1668 A	2,2',3,4',5,6,6'-HEPTACHLOROBIPHENYL (BZ-188)	FL
EPA 1668 A	2,2',3,4'-TETRACHLOROBIPHENYL (BZ-42)	FL
EPA 1668 A	2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL (BZ-182)	FL
EPA 1668 A	2,2',3,4,4',5,6-HEPTACHLOROBIPHENYL (BZ-181)	FL
EPA 1668 A	2,2',3,4,4',6,6'-HEPTACHLOROBIPHENYL (BZ-184)	FL
EPA 1668 A	2,2',3,4,5,5'-HEXACHLOROBIPHENYL (BZ-141)	FL
EPA 1668 A	2,2',3,4,5,6-HEXACHLOROBIPHENYL (BZ-142)	FL
EPA 1668 A	2,2',3,4,6,6'-HEXACHLOROBIPHENYL (BZ-145)	FL
EPA 1668 A	2,2',3,5,5'-PENTACHLOROBIPHENYL (BZ-92)	FL
EPA 1668 A	2,2',3,5,6,6'-HEXACHLOROBIPHENYL (BZ-152)	FL
EPA 1668 A	2,2',3,6,6'-PENTACHLOROBIPHENYL (BZ-96)	FL
EPA 1668 A	2,2',4,4',5,6'-HEXACHLOROBIPHENYL (BZ-154)	FL
EPA 1668 A	2,2',4,5',6-PENTACHLOROBIPHENYL (BZ-103)	FL
EPA 1668 A	2,2',4,6,6'-PENTACHLOROBIPHENYL (BZ-104)	FL
EPA 1668 A	2,2',5,5'-TETRACHLOROBIPHENYL (BZ-52)	FL

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METHOD	ANALYTE	PRIMARY
EPA 1668 A	2,2',6,6'-TETRACHLOROBIPHENYL (BZ-54)	FL
EPA 1668 A	2,2'-DICHLOROBIPHENYL (BZ-4)	FL
EPA 1668 A	2,3',4,4',5'-PENTACHLOROBIPHENYL (BZ-123)	FL
EPA 1668 A	2,3',4,4',5-PENTACHLOROBIPHENYL (BZ-118)	FL
EPA 1668 A	2,3',4,5',6-PENTACHLOROBIPHENYL (BZ-121)	FL
EPA 1668 A	2,3',4,5,5'-PENTACHLOROBIPHENYL (BZ-120)	FL
EPA 1668 A	2,3',4-TRICHLOROBIPHENYL (BZ-25)	FL
EPA 1668 A	2,3',5,5'-TETRACHLOROBIPHENYL (BZ-72)	FL
EPA 1668 A	2,3'-DICHLOROBIPHENYL (BZ-6)	FL
EPA 1668 A	2,3,3',4',5'-PENTACHLOROBIPHENYL (BZ-122)	FL
EPA 1668 A	2,3,3',4',5-PENTACHLOROBIPHENYL (BZ-107)	FL
EPA 1668 A	2,3,3',4,4',5',6-HEPTACHLOROBIPHENYL (BZ-191)	FL
EPA 1668 A	2,3,3',4,4',5,5'-HEPTACHLOROBIPHENYL (BZ-189)	FL
EPA 1668 A	2,3,3',4,4',6-HEXACHLOROBIPHENYL (BZ-158)	FL
EPA 1668 A	2,3,3',4,5',6-HEXACHLOROBIPHENYL (BZ-161)	FL
EPA 1668 A	2,3,3',4,5,5'-HEXACHLOROBIPHENYL (BZ-159)	FL
EPA 1668 A	2,3,3',4-TETRACHLOROBIPHENYL (BZ-55)	FL
EPA 1668 A	2,3,3',5,5',6-HEXACHLOROBIPHENYL (BZ-165)	FL
EPA 1668 A	2,3,3',5,6-PENTACHLOROBIPHENYL (BZ-112)	FL
EPA 1668 A	2,3,4',5-TETRACHLOROBIPHENYL (BZ-63)	FL
EPA 1668 A	2,3,4'-TRICHLOROBIPHENYL (BZ-22)	FL
EPA 1668 A	2,3,4,4'-TETRACHLOROBIPHENYL (BZ-60)	FL
EPA 1668 A	2,3,6-TRICHLOROBIPHENYL (BZ-24)	FL
EPA 1668 A	2,4',5-TRICHLOROBIPHENYL (BZ-31)	FL
EPA 1668 A	2,4'-DICHLOROBIPHENYL (BZ-8)	FL
EPA 1668 A	2,5-DICHLOROBIPHENYL (BZ-9)	FL
EPA 1668 A	2-CHLOROBIPHENYL (BZ-1)	FL
EPA 1668 A	2,2',6-TRICHLOROBIPHENYL (BZ-19)	FL
EPA 1668 A	2,3',4',5',6-PENTACHLOROBIPHENYL (BZ-125)	FL
EPA 1668 A	2,3',4,4',5,5'-HEXACHLOROBIPHENYL (BZ-167)	FL
EPA 1668 A	2,3',4,4'-TETRACHLOROBIPHENYL (BZ-66)	FL
EPA 1668 A	2,3',4,5'-TETRACHLOROBIPHENYL (BZ-68)	FL
EPA 1668 A	2,3',4,5-TETRACHLOROBIPHENYL (BZ-67)	FL
EPA 1668 A	2,3',5'-TRICHLOROBIPHENYL (BZ-34)	FL
EPA 1668 A	2,3',6-TRICHLOROBIPHENYL (BZ-27)	FL
EPA 1668 A	2,3,3',4',5',6-HEXACHLOROBIPHENYL (BZ-164)	FL
EPA 1668 A	2,3,3',4',5,5'-HEXACHLOROBIPHENYL (BZ-162)	FL
EPA 1668 A	2,3,3',4'-TETRACHLOROBIPHENYL (BZ-56)	FL
EPA 1668 A	2,3,3',4,4',5,5',6-OCTACHLOROBIPHENYL (BZ-205)	FL
EPA 1668 A	2,3,3',4,4',5,6-HEPTACHLOROBIPHENYL (BZ-190)	FL
EPA 1668 A	2,3,3',4,4'-PENTACHLOROBIPHENYL (BZ-105)	FL
EPA 1668 A	2,3,3',4,5,5',6-HEPTACHLOROBIPHENYL (BZ-192)	FL
EPA 1668 A	2,3,3',4,5-PENTACHLOROBIPHENYL (BZ-106)	FL
EPA 1668 A	2,3,3',5'-TETRACHLOROBIPHENYL (BZ-58)	FL
EPA 1668 A	2,3,3',5,5'-PENTACHLOROBIPHENYL (BZ-111)	FL
EPA 1668 A	2,3,3',5-TETRACHLOROBIPHENYL (BZ-57)	FL
EPA 1668 A	2,3,4',6-TETRACHLOROBIPHENYL (BZ-64)	FL
EPA 1668 A	2,3,4,4',5-PENTACHLOROBIPHENYL (BZ-114)	FL
EPA 1668 A	2,3,5-TRICHLOROBIPHENYL (BZ-23)	FL
EPA 1668 A	2,3-DICHLOROBIPHENYL (BZ-5)	FL
EPA 1668 A	2,4',6-TRICHLOROBIPHENYL (BZ-32)	FL
EPA 1668 A	2,4-DICHLOROBIPHENYL (BZ-7)	FL
EPA 1668 A	2,6-DICHLOROBIPHENYL (BZ-10)	FL
EPA 1668 A	3,3',4,4',5,5'-HEXACHLOROBIPHENYL (BZ-169)	FL

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EPA 1668 A	3,3',4,4',5-PENTACHLOROBIPHENYL (BZ-126)	FL
EPA 1668 A	3,3',4,5'-TETRACHLOROBIPHENYL (BZ-79)	FL
EPA 1668 A	3,3',4,5-TETRACHLOROBIPHENYL (BZ-78)	FL
EPA 1668 A	3,3',5,5'-TETRACHLOROBIPHENYL (BZ-80)	FL
EPA 1668 A	3,3'-DICHLOROBIPHENYL (BZ-11)	FL
EPA 1668 A	3,4,4',5-TETRACHLOROBIPHENYL (BZ-81)	FL
EPA 1668 A	3,4,5-TRICHLOROBIPHENYL (BZ-38)	FL
EPA 1668 A	3-CHLOROBIPHENYL (BZ-2)	FL
EPA 1668 A	4-CHLOROBIPHENYL (BZ-3)	FL
EPA 1668 A	PCB-(108/119/86/97/125/87)	FL
EPA 1668 A	PCB-(113/90/101)	FL
EPA 1668 A	PCB-(128/166)	FL
EPA 1668 A	PCB-(134/143)	FL
EPA 1668 A	PCB-(139/140)	FL
EPA 1668 A	PCB-(153/168)	FL
EPA 1668 A	PCB-(171/173)	FL
EPA 1668 A	PCB-(183/185)	FL
EPA 1668 A	PCB-(21/33)	FL
EPA 1668 A	PCB-(28/20)	FL
EPA 1668 A	PCB-(41/40/71)	FL
EPA 1668 A	PCB-(45/51)	FL
EPA 1668 A	PCB-(59/62/75)	FL
EPA 1668 A	PCB-(69/49)	FL
EPA 1668 A	PCB-(88/91)	FL
EPA 1668 A - EXTENDED	PCB-(135/151)	FL
EPA 1668 A - EXTENDED	PCB-(93/100)	FL
EPA 1668 B	2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL (BZ-206)	FL
EPA 1668 B	2,2',3,3',4,4',5,6'-OCTACHLOROBIPHENYL (BZ-196)	FL
EPA 1668 B	2,2',3,3',4,4',5,6-OCTACHLOROBIPHENYL BZ-195)	FL
EPA 1668 B	2,2',3,3',4,4',6,6'-OCTACHLOROBIPHENYL (BZ-197)	FL
EPA 1668 B	2,2',3,3',4,5',6,6'-OCTACHLOROBIPHENYL (BZ-201)	FL
EPA 1668 B	2,2',3,3',4,5'-HEXACHLOROBIPHENYL (BZ-130)	FL
EPA 1668 A	3,3',4,4'-TETRACHLOROBIPHENYL (BZ-77)	FL
EPA 1668 A	3,3',4,5,5'-PENTACHLOROBIPHENYL (BZ-127)	FL
EPA 1668 A	3,3',4-TRICHLOROBIPHENYL (BZ-35)	FL
EPA 1668 A	3,3',5-TRICHLOROBIPHENYL (BZ-36)	FL
EPA 1668 A	3,4',5-TRICHLOROBIPHENYL (BZ-39)	FL
EPA 1668 A	3,4,4'-TRICHLOROBIPHENYL (BZ-37)	FL
EPA 1668 A	3,5-DICHLOROBIPHENYL (BZ-14)	FL
EPA 1668 A	4,4'-DICHLOROBIPHENYL (BZ-15)	FL
EPA 1668 A	DECACHLOROBIPHENYL (BZ-209)	FL
EPA 1668 A	PCB-(110/115)	FL
EPA 1668 A	PCB-(117/116/85)	FL
EPA 1668 A	PCB-(13/12)	FL
EPA 1668 A	PCB-(138/163/129/160)	FL
EPA 1668 A	PCB-(147/149)	FL
EPA 1668 A	PCB-(156/157)	FL
EPA 1668 A	PCB-(180/193)	FL
EPA 1668 A	PCB-(198/199)	FL
EPA 1668 A	PCB-(26/29)	FL
EPA 1668 A	PCB-(30/18)	FL
EPA 1668 A	PCB-(44/47/65)	FL
EPA 1668 A	PCB-(50/53)	FL
EPA 1668 A	PCB-(61/70/74/76)	FL
EPA 1668 A	PCB-(83/99)	FL
EPA 1668 A - EXTENDED	PCB-(108/124)	FL
EPA 1668 A - EXTENDED	PCB-(43/73)	FL
EPA 1668 A - EXTENDED	PCB-(98/102)	FL
EPA 1668 B	2,2',3,3',4,4',5,5'-OCTACHLOROBIPHENYL (BZ-194)	FL
EPA 1668 B	2,2',3,3',4,4',5,6,6'-NONACHLOROBIPHENYL (BZ-207)	FL
EPA 1668 B	2,2',3,3',4,4',5-HEPTACHLOROBIPHENYL (BZ-170)	FL
EPA 1668 B	2,2',3,3',4,5',6'-HEPTACHLOROBIPHENYL (BZ-177)	FL
EPA 1668 B	2,2',3,3',4,5',6-HEPTACHLOROBIPHENYL (BZ-175)	FL
EPA 1668 B	2,2',3,3',4,5,5',6,6'-NONACHLOROBIPHENYL (BZ-208)	FL

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BIOLOGICAL TISSUE

METHOD	ANALYTE	PRIMARY
EPA 1668 B	2,2',3,3',4,5,5'-HEPTACHLOROBIPHENYL (BZ-172)	FL
EPA 1668 B	2,2',3,3',4,5,6,6'-OCTACHLOROBIPHENYL (BZ-200)	FL
EPA 1668 B	2,2',3,3',4,6,6'-HEPTACHLOROBIPHENYL (BZ-176)	FL
EPA 1668 B	2,2',3,3',4-PENTACHLOROBIPHENYL (BZ-82)	FL
EPA 1668 B	2,2',3,3',5,5',6-HEPTACHLOROBIPHENYL (BZ-178)	FL
EPA 1668 B	2,2',3,3',5,6,6'-HEPTACHLOROBIPHENYL (BZ-179)	FL
EPA 1668 B	2,2',3,3',6-PENTACHLOROBIPHENYL (BZ-84)	FL
EPA 1668 B	2,2',3,4',5,5'-HEXACHLOROBIPHENYL (BZ-146)	FL
EPA 1668 B	2,2',3,4',5,6,6'-HEPTACHLOROBIPHENYL (BZ-188)	FL
EPA 1668 B	2,2',3,4'-TETRACHLOROBIPHENYL (BZ-42)	FL
EPA 1668 B	2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL (BZ-182)	FL
EPA 1668 B	2,2',3,4,4',5,6-HEPTACHLOROBIPHENYL (BZ-181)	FL
EPA 1668 B	2,2',3,4,4',6,6'-HEPTACHLOROBIPHENYL (BZ-184)	FL
EPA 1668 B	2,2',3,4,5,5'-HEXACHLOROBIPHENYL (BZ-141)	FL
EPA 1668 B	2,2',3,4,5,6-HEXACHLOROBIPHENYL (BZ-142)	FL
EPA 1668 B	2,2',3,4,6,6'-HEXACHLOROBIPHENYL (BZ-145)	FL
EPA 1668 B	2,2',3,5,5'-PENTACHLOROBIPHENYL (BZ-92)	FL
EPA 1668 B	2,2',3,5,6,6'-HEXACHLOROBIPHENYL (BZ-152)	FL
EPA 1668 B	2,2',3,6,6'-PENTACHLOROBIPHENYL (BZ-96)	FL
EPA 1668 B	2,2',4,4',5,6'-HEXACHLOROBIPHENYL (BZ-154)	FL
EPA 1668 B	2,2',4,5',6-PENTACHLOROBIPHENYL (BZ-103)	FL
EPA 1668 B	2,2',4,6,6'-PENTACHLOROBIPHENYL (BZ-104)	FL
EPA 1668 B	2,2',5,5'-TETRACHLOROBIPHENYL (BZ-52)	FL
EPA 1668 B	2,2',6-TRICHLOROBIPHENYL (BZ-19)	FL
EPA 1668 B	2,3',4',5',6-PENTACHLOROBIPHENYL (BZ-125)	FL
EPA 1668 B	2,2',3,3',4,5,6'-HEPTACHLOROBIPHENYL (BZ-174)	FL
EPA 1668 B	2,2',3,3',4,6'-HEXACHLOROBIPHENYL (BZ-132)	FL
EPA 1668 B	2,2',3,3',4,6-HEXACHLOROBIPHENYL (BZ-131)	FL
EPA 1668 B	2,2',3,3',5,5',6,6'-OCTACHLOROBIPHENYL (BZ-202)	FL
EPA 1668 B	2,2',3,3',5,5'-HEXACHLOROBIPHENYL (BZ-133)	FL
EPA 1668 B	2,2',3,3',6,6'-HEXACHLOROBIPHENYL (BZ-136)	FL
EPA 1668 B	2,2',3,4',5,5',6-HEPTACHLOROBIPHENYL (BZ-187)	FL
EPA 1668 B	2,2',3,4',5,6'-HEXACHLOROBIPHENYL (BZ-148)	FL
EPA 1668 B	2,2',3,4',6,6'-HEXACHLOROBIPHENYL (BZ-150)	FL
EPA 1668 B	2,2',3,4,4',5,5',6-OCTACHLOROBIPHENYL (BZ-203)	FL
EPA 1668 B	2,2',3,4,4',5,6,6'-OCTACHLOROBIPHENYL (BZ-204)	FL
EPA 1668 B	2,2',3,4,4',5-HEXACHLOROBIPHENYL (BZ-137)	FL
EPA 1668 B	2,2',3,4,5',6-HEXACHLOROBIPHENYL (BZ-144)	FL
EPA 1668 B	2,2',3,4,5,6,6'-HEPTACHLOROBIPHENYL (BZ-186)	FL
EPA 1668 B	2,2',3,4,6'-PENTACHLOROBIPHENYL (BZ-89)	FL
EPA 1668 B	2,2',3,5',6-PENTACHLOROBIPHENYL (BZ-95)	FL
EPA 1668 B	2,2',3,5,6'-PENTACHLOROBIPHENYL (BZ-94)	FL
EPA 1668 B	2,2',3,6'-TETRACHLOROBIPHENYL (BZ-46)	FL
EPA 1668 B	2,2',3-TRICHLOROBIPHENYL (BZ-16)	FL
EPA 1668 B	2,2',4,4',6,6'-HEXACHLOROBIPHENYL (BZ-155)	FL
EPA 1668 B	2,2',4,5-TETRACHLOROBIPHENYL (BZ-48)	FL
EPA 1668 B	2,2',4-TRICHLOROBIPHENYL (BZ-17)	FL
EPA 1668 B	2,2',6,6'-TETRACHLOROBIPHENYL (BZ-54)	FL
EPA 1668 B	2,2'-DICHLOROBIPHENYL (BZ-4)	FL
EPA 1668 B	2,3',4,4',5'-PENTACHLOROBIPHENYL (BZ-123)	FL

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METHOD	ANALYTE	PRIMARY
EPA 1668 B	2,3',4,4',5,5'-HEXACHLOROBIPHENYL (BZ-167)	FL
EPA 1668 B	2,3',4,4'-TETRACHLOROBIPHENYL (BZ-66)	FL
EPA 1668 B	2,3',4,5'-TETRACHLOROBIPHENYL (BZ-68)	FL
EPA 1668 B	2,3',4,5-TETRACHLOROBIPHENYL (BZ-67)	FL
EPA 1668 B	2,3',5'-TRICHLOROBIPHENYL (BZ-34)	FL
EPA 1668 B	2,3',6-TRICHLOROBIPHENYL (BZ-27)	FL
EPA 1668 B	2,3,3',4',5',6-HEXACHLOROBIPHENYL (BZ-164)	FL
EPA 1668 B	2,3,3',4',5,5'-HEXACHLOROBIPHENYL (BZ-162)	FL
EPA 1668 B	2,3,3',4'-TETRACHLOROBIPHENYL (BZ-56)	FL
EPA 1668 B	2,3,3',4,4',5,5',6-OCTACHLOROBIPHENYL (BZ-205)	FL
EPA 1668 B	2,3,3',4,4',5,6-HEPTACHLOROBIPHENYL (BZ-190)	FL
EPA 1668 B	2,3,3',4,4'-PENTACHLOROBIPHENYL (BZ-105)	FL
EPA 1668 B	2,3,3',4,5,5',6-HEPTACHLOROBIPHENYL (BZ-192)	FL
EPA 1668 B	2,3,3',4,5-PENTACHLOROBIPHENYL (BZ-106)	FL
EPA 1668 B	2,3,3',5'-TETRACHLOROBIPHENYL (BZ-58)	FL
EPA 1668 B	2,3,3',5,5'-PENTACHLOROBIPHENYL (BZ-111)	FL
EPA 1668 B	2,3,3',5-TETRACHLOROBIPHENYL (BZ-57)	FL
EPA 1668 B	2,3,4',6-TETRACHLOROBIPHENYL (BZ-64)	FL
EPA 1668 B	2,3,4,4',5-PENTACHLOROBIPHENYL (BZ-114)	FL
EPA 1668 B	2,3,5-TRICHLOROBIPHENYL (BZ-23)	FL
EPA 1668 B	2,3-DICHLOROBIPHENYL (BZ-5)	FL
EPA 1668 B	2,4',6-TRICHLOROBIPHENYL (BZ-32)	FL
EPA 1668 B	2,4-DICHLOROBIPHENYL (BZ-7)	FL
EPA 1668 B	2,6-DICHLOROBIPHENYL (BZ-10)	FL
EPA 1668 B	3,3',4,4',5,5'-HEXACHLOROBIPHENYL (BZ-169)	FL
EPA 1668 B	3,3',4,4'-TETRACHLOROBIPHENYL (BZ-77)	FL
EPA 1668 B	3,3',4,5,5'-PENTACHLOROBIPHENYL (BZ-127)	FL
EPA 1668 B	3,3',4-TRICHLOROBIPHENYL (BZ-35)	FL
EPA 1668 B	2,3',4,4',5-PENTACHLOROBIPHENYL (BZ-118)	FL
EPA 1668 B	2,3',4,5',6-PENTACHLOROBIPHENYL (BZ-121)	FL
EPA 1668 B	2,3',4,5,5'-PENTACHLOROBIPHENYL (BZ-120)	FL
EPA 1668 B	2,3',4-TRICHLOROBIPHENYL (BZ-25)	FL
EPA 1668 B	2,3',5,5'-TETRACHLOROBIPHENYL (BZ-72)	FL
EPA 1668 B	2,3'-DICHLOROBIPHENYL (BZ-6)	FL
EPA 1668 B	2,3,3',4',5'-PENTACHLOROBIPHENYL (BZ-122)	FL
EPA 1668 B	2,3,3',4',5-PENTACHLOROBIPHENYL (BZ-107)	FL
EPA 1668 B	2,3,3',4,4',5',6-HEPTACHLOROBIPHENYL (BZ-191)	FL
EPA 1668 B	2,3,3',4,4',5,5'-HEPTACHLOROBIPHENYL (BZ-189)	FL
EPA 1668 B	2,3,3',4,4',6-HEXACHLOROBIPHENYL (BZ-158)	FL
EPA 1668 B	2,3,3',4,5',6-HEXACHLOROBIPHENYL (BZ-161)	FL
EPA 1668 B	2,3,3',4,5,5'-HEXACHLOROBIPHENYL (BZ-159)	FL
EPA 1668 B	2,3,3',4-TETRACHLOROBIPHENYL (BZ-55)	FL
EPA 1668 B	2,3,3',5,5',6-HEXACHLOROBIPHENYL (BZ-165)	FL
EPA 1668 B	2,3,3',5,6-PENTACHLOROBIPHENYL (BZ-112)	FL
EPA 1668 B	2,3,4',5-TETRACHLOROBIPHENYL (BZ-63)	FL
EPA 1668 B	2,3,4'-TRICHLOROBIPHENYL (BZ-22)	FL
EPA 1668 B	2,3,4,4'-TETRACHLOROBIPHENYL (BZ-60)	FL
EPA 1668 B	2,3,6-TRICHLOROBIPHENYL (BZ-24)	FL
EPA 1668 B	2,4',5-TRICHLOROBIPHENYL (BZ-31)	FL
EPA 1668 B	2,4'-DICHLOROBIPHENYL (BZ-8)	FL
EPA 1668 B	2,5-DICHLOROBIPHENYL (BZ-9)	FL
EPA 1668 B	2-CHLOROBIPHENYL (BZ-1)	FL
EPA 1668 B	3,3',4,4',5-PENTACHLOROBIPHENYL (BZ-126)	FL
EPA 1668 B	3,3',4,5'-TETRACHLOROBIPHENYL (BZ-79)	FL
EPA 1668 B	3,3',4,5-TETRACHLOROBIPHENYL (BZ-78)	FL

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METHOD	ANALYTE	PRIMARY
EPA 1668 B	3,3',5,5'-TETRACHLOROBIPHENYL (BZ-80)	FL
EPA 1668 B	3,3'-DICHLOROBIPHENYL (BZ-11)	FL
EPA 1668 B	3,4,4',5-TETRACHLOROBIPHENYL (BZ-81)	FL
EPA 1668 B	3,4,5-TRICHLOROBIPHENYL (BZ-38)	FL
EPA 1668 B	3-CHLOROBIPHENYL (BZ-2)	FL
EPA 1668 B	4-CHLOROBIPHENYL (BZ-3)	FL
EPA 1668 B	PCB-(108/119/86/97/125/87)	FL
EPA 1668 B	PCB-(113/90/101)	FL
EPA 1668 B	PCB-(128/166)	FL
EPA 1668 B	PCB-(134/143)	FL
EPA 1668 B	PCB-(139/140)	FL
EPA 1668 B	PCB-(153/168)	FL
EPA 1668 B	PCB-(171/173)	FL
EPA 1668 B	PCB-(183/185)	FL
EPA 1668 B	PCB-(21/33)	FL
EPA 1668 B	PCB-(28/20)	FL
EPA 1668 B	PCB-(41/40/71)	FL
EPA 1668 B	PCB-(45/51)	FL
EPA 1668 B	PCB-(59/62/75)	FL
EPA 1668 B	PCB-(69/49)	FL
EPA 1668 B	PCB-(88/91)	FL
EPA 1668 B - EXTENDED	PCB-(135/151)	FL
EPA 1668 B - EXTENDED	PCB-(93/100)	FL
EPA 8290 A	1,2,3,4,6,7,8,9-OCTACHLORODIBENZO-P-DIOXIN (OCDD)	FL
EPA 8290 A	1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN (1,2,3,4,6,7,8-HPCDD)	FL
EPA 8290 A	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN (1,2,3,4,7,8,9-HPCDF)	FL
EPA 8290 A	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN (1,2,3,4,7,8-HXCDF)	FL
EPA 8290 A	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN (1,2,3,6,7,8-HXCDF)	FL
EPA 8290 A	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN (1,2,3,7,8,9-HXCDF)	FL
EPA 8290 A	1,2,3,7,8-PENTACHLORODIBENZOFURAN (1,2,3,7,8-PECDF)	FL
EPA 8290 A	2,3,4,7,8-PENTACHLORODIBENZOFURAN	FL
EPA 8290 A	2,3,7,8-TETRACHLORODIBENZOFURAN (2,3,7,8-TCDF)	FL
EPA 1668 B	3,3',5-TRICHLOROBIPHENYL (BZ-36)	FL
EPA 1668 B	3,4',5-TRICHLOROBIPHENYL (BZ-39)	FL
EPA 1668 B	3,4,4'-TRICHLOROBIPHENYL (BZ-37)	FL
EPA 1668 B	3,5-DICHLOROBIPHENYL (BZ-14)	FL
EPA 1668 B	4,4'-DICHLOROBIPHENYL (BZ-15)	FL
EPA 1668 B	DECACHLOROBIPHENYL (BZ-209)	FL
EPA 1668 B	PCB-(110/115)	FL
EPA 1668 B	PCB-(117/116/85)	FL
EPA 1668 B	PCB-(13/12)	FL
EPA 1668 B	PCB-(138/163/129/160)	FL
EPA 1668 B	PCB-(147/149)	FL
EPA 1668 B	PCB-(156/157)	FL
EPA 1668 B	PCB-(180/193)	FL
EPA 1668 B	PCB-(198/199)	FL
EPA 1668 B	PCB-(26/29)	FL
EPA 1668 B	PCB-(30/18)	FL
EPA 1668 B	PCB-(44/47/65)	FL
EPA 1668 B	PCB-(50/53)	FL
EPA 1668 B	PCB-(61/70/74/76)	FL
EPA 1668 B	PCB-(83/99)	FL
EPA 1668 B - EXTENDED	PCB-(108/124)	FL
EPA 1668 B - EXTENDED	PCB-(43/73)	FL
EPA 1668 B - EXTENDED	PCB-(98/102)	FL
EPA 8290 A	1,2,3,4,6,7,8,9-OCTACHLORODIBENZOFURAN (OCDF)	FL
EPA 8290 A	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN (1,2,3,4,6,7,8-HPCDF)	FL
EPA 8290 A	1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN (1,2,3,4,7,8-HXCDD)	FL
EPA 8290 A	1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN(1,2,3,6,7,8-HXCDD)	FL
EPA 8290 A	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN (1,2,3,7,8,9-HXCDD)	FL
EPA 8290 A	1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN (1,2,3,7,8-PECDD)	FL
EPA 8290 A	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN (2,3,4,6,7,8-HXCDF)	FL
EPA 8290 A	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (2,3,7,8-TCDD)	FL
EPA 8290 A - EXTENDED	TOTAL HEPTACHLORODIBENZO-P-DIOXIN (HPCDD, TOTAL)	FL

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EPA 8290 A - EXTENDED	TOTAL HEPTACHLORODIBENZOFURAN (HPCDF, TOTAL)	FL
EPA 8290 A - EXTENDED	TOTAL HEXACHLORODIBENZOFURAN (HXCDF, TOTAL)	FL
EPA 8290 A - EXTENDED	TOTAL PENTACHLORODIBENZOFURAN (PECDF, TOTAL)	FL
EPA 8290 A - EXTENDED	TOTAL TETRACHLORODIBENZOFURAN (TCDF, TOTAL)	FL
EPA 8290 A - EXTENDED	TOTAL HEXACHLORODIBENZO-P-DIOXIN (HXCDD, TOTAL)	FL
EPA 8290 A - EXTENDED	TOTAL PENTACHLORODIBENZO-P-DIOXIN (PECDD, TOTAL)	FL
EPA 8290 A - EXTENDED	TOTAL TETRACHLORODIBENZO-P-DIOXIN (TCDD, TOTAL)	FL

DRINKING WATER

METHOD	ANALYTE	PRIMARY
EPA 1613 B	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (2,3,7,8-TCDD)	FL

NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 1613 B	1,2,3,4,6,7,8,9-OCTACHLORODIBENZO-P-DIOXIN (OCDD)	FL
EPA 1613 B	1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN (1,2,3,4,6,7,8-HPCDD)	FL
EPA 1613 B	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN (1,2,3,4,7,8,9-HPCDF)	FL
EPA 1613 B	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN (1,2,3,4,7,8-HXCDF)	FL
EPA 1613 B	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN (1,2,3,6,7,8-HXCDF)	FL
EPA 1613 B	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN (1,2,3,7,8,9-HXCDF)	FL
EPA 1613 B	1,2,3,7,8-PENTACHLORODIBENZOFURAN (1,2,3,7,8-PECDF)	FL
EPA 1613 B	2,3,4,7,8-PENTACHLORODIBENZOFURAN	FL
EPA 1613 B	2,3,7,8-TETRACHLORODIBENZOFURAN (2,3,7,8-TCDF)	FL
EPA 1668 A	2,2',3,3',4,4',5,5'-OCTACHLOROBIPHENYL (BZ-194)	FL
EPA 1668 A	2,2',3,3',4,4',5,6,6'-NONACHLOROBIPHENYL (BZ-207)	FL
EPA 1668 A	2,2',3,3',4,4',5-HEPTACHLOROBIPHENYL (BZ-170)	FL
EPA 1668 A	2,2',3,3',4,5',6'-HEPTACHLOROBIPHENYL (BZ-177)	FL
EPA 1668 A	2,2',3,3',4,5',6-HEPTACHLOROBIPHENYL (BZ-175)	FL
EPA 1613 B	1,2,3,4,6,7,8,9-OCTACHLORODIBENZOFURAN (OCDF)	FL
EPA 1613 B	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN (1,2,3,4,6,7,8-HPCDF)	FL
EPA 1613 B	1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN (1,2,3,4,7,8-HXCDD)	FL
EPA 1613 B	1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN(1,2,3,6,7,8-HXCDD)	FL
EPA 1613 B	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN (1,2,3,7,8,9-HXCDD)	FL
EPA 1613 B	1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN (1,2,3,7,8-PECDD)	FL
EPA 1613 B	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN (2,3,4,6,7,8-HXCDF)	FL
EPA 1613 B	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (2,3,7,8-TCDD)	FL
EPA 1668 A	2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL (BZ-206)	FL
EPA 1668 A	2,2',3,3',4,4',5,6'-OCTACHLOROBIPHENYL (BZ-196)	FL
EPA 1668 A	2,2',3,3',4,4',5,6-OCTACHLOROBIPHENYL BZ-195)	FL
EPA 1668 A	2,2',3,3',4,4',6,6'-OCTACHLOROBIPHENYL (BZ-197)	FL
EPA 1668 A	2,2',3,3',4,5',6,6'-OCTACHLOROBIPHENYL (BZ-201)	FL
EPA 1668 A	2,2',3,3',4,5'-HEXACHLOROBIPHENYL (BZ-130)	FL

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 7618

Testamerica Laboratories Inc.- Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Virginia Laboratory ID: 460176
Effective Date: January 20, 2015
Expiration Date: September 14, 2015

NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 1668 A	2,2',3,3',4,5,5',6,6'-NONACHLOROBIPHENYL (BZ-208)	FL
EPA 1668 A	2,2',3,3',4,5,6'-HEPTACHLOROBIPHENYL (BZ-174)	FL
EPA 1668 A	2,2',3,3',4,6'-HEXACHLOROBIPHENYL (BZ-132)	FL
EPA 1668 A	2,2',3,3',4,6-HEXACHLOROBIPHENYL (BZ-131)	FL
EPA 1668 A	2,2',3,3',5,5',6,6'-OCTACHLOROBIPHENYL (BZ-202)	FL
EPA 1668 A	2,2',3,3',5,5'-HEXACHLOROBIPHENYL (BZ-133)	FL
EPA 1668 A	2,2',3,3',6,6'-HEXACHLOROBIPHENYL (BZ-136)	FL
EPA 1668 A	2,2',3,4',5,5',6-HEPTACHLOROBIPHENYL (BZ-187)	FL
EPA 1668 A	2,2',3,4',5,6'-HEXACHLOROBIPHENYL (BZ-148)	FL
EPA 1668 A	2,2',3,4',6,6'-HEXACHLOROBIPHENYL (BZ-150)	FL
EPA 1668 A	2,2',3,4,4',5,5',6-OCTACHLOROBIPHENYL (BZ-203)	FL
EPA 1668 A	2,2',3,4,4',5,6,6'-OCTACHLOROBIPHENYL (BZ-204)	FL
EPA 1668 A	2,2',3,4,4',5-HEXACHLOROBIPHENYL (BZ-137)	FL
EPA 1668 A	2,2',3,4,5',6-HEXACHLOROBIPHENYL (BZ-144)	FL
EPA 1668 A	2,2',3,4,5,6,6'-HEPTACHLOROBIPHENYL (BZ-186)	FL
EPA 1668 A	2,2',3,4,6'-PENTACHLOROBIPHENYL (BZ-89)	FL
EPA 1668 A	2,2',3,5',6-PENTACHLOROBIPHENYL (BZ-95)	FL
EPA 1668 A	2,2',3,5,6'-PENTACHLOROBIPHENYL (BZ-94)	FL
EPA 1668 A	2,2',3,6'-TETRACHLOROBIPHENYL (BZ-46)	FL
EPA 1668 A	2,2',3-TRICHLOROBIPHENYL (BZ-16)	FL
EPA 1668 A	2,2',4,4',6,6'-HEXACHLOROBIPHENYL (BZ-155)	FL
EPA 1668 A	2,2',4,5-TETRACHLOROBIPHENYL (BZ-48)	FL
EPA 1668 A	2,2',4-TRICHLOROBIPHENYL (BZ-17)	FL
EPA 1668 A	2,2',6,6'-TETRACHLOROBIPHENYL (BZ-54)	FL
EPA 1668 A	2,2'-DICHLOROBIPHENYL (BZ-4)	FL
EPA 1668 A	2,2',3,3',4,5,5'-HEPTACHLOROBIPHENYL (BZ-172)	FL
EPA 1668 A	2,2',3,3',4,5,6,6'-OCTACHLOROBIPHENYL (BZ-200)	FL
EPA 1668 A	2,2',3,3',4,6,6'-HEPTACHLOROBIPHENYL (BZ-176)	FL
EPA 1668 A	2,2',3,3',4-PENTACHLOROBIPHENYL (BZ-82)	FL
EPA 1668 A	2,2',3,3',5,5',6-HEPTACHLOROBIPHENYL (BZ-178)	FL
EPA 1668 A	2,2',3,3',5,6,6'-HEPTACHLOROBIPHENYL (BZ-179)	FL
EPA 1668 A	2,2',3,3',6-PENTACHLOROBIPHENYL (BZ-84)	FL
EPA 1668 A	2,2',3,4',5,5'-HEXACHLOROBIPHENYL (BZ-146)	FL
EPA 1668 A	2,2',3,4',5,6,6'-HEPTACHLOROBIPHENYL (BZ-188)	FL
EPA 1668 A	2,2',3,4'-TETRACHLOROBIPHENYL (BZ-42)	FL
EPA 1668 A	2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL (BZ-182)	FL
EPA 1668 A	2,2',3,4,4',5,6-HEPTACHLOROBIPHENYL (BZ-181)	FL
EPA 1668 A	2,2',3,4,4',6,6'-HEPTACHLOROBIPHENYL (BZ-184)	FL
EPA 1668 A	2,2',3,4,5,5'-HEXACHLOROBIPHENYL (BZ-141)	FL
EPA 1668 A	2,2',3,4,5,6-HEXACHLOROBIPHENYL (BZ-142)	FL
EPA 1668 A	2,2',3,4,6,6'-HEXACHLOROBIPHENYL (BZ-145)	FL
EPA 1668 A	2,2',3,5,5'-PENTACHLOROBIPHENYL (BZ-92)	FL
EPA 1668 A	2,2',3,5,6,6'-HEXACHLOROBIPHENYL (BZ-152)	FL
EPA 1668 A	2,2',3,6,6'-PENTACHLOROBIPHENYL (BZ-96)	FL
EPA 1668 A	2,2',4,4',5,6'-HEXACHLOROBIPHENYL (BZ-154)	FL
EPA 1668 A	2,2',4,5',6-PENTACHLOROBIPHENYL (BZ-103)	FL
EPA 1668 A	2,2',4,6,6'-PENTACHLOROBIPHENYL (BZ-104)	FL
EPA 1668 A	2,2',5,5'-TETRACHLOROBIPHENYL (BZ-52)	FL
EPA 1668 A	2,2',6-TRICHLOROBIPHENYL (BZ-19)	FL
EPA 1668 A	2,3',4',5',6-PENTACHLOROBIPHENYL (BZ-125)	FL

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 1668 A	2,3',4,4',5'-PENTACHLOROBIPHENYL (BZ-123)	FL
EPA 1668 A	2,3',4,4',5-PENTACHLOROBIPHENYL (BZ-118)	FL
EPA 1668 A	2,3',4,5',6-PENTACHLOROBIPHENYL (BZ-121)	FL
EPA 1668 A	2,3',4,5,5'-PENTACHLOROBIPHENYL (BZ-120)	FL
EPA 1668 A	2,3',4-TRICHLOROBIPHENYL (BZ-25)	FL
EPA 1668 A	2,3',5,5'-TETRACHLOROBIPHENYL (BZ-72)	FL
EPA 1668 A	2,3'-DICHLOROBIPHENYL (BZ-6)	FL
EPA 1668 A	2,3,3',4',5'-PENTACHLOROBIPHENYL (BZ-122)	FL
EPA 1668 A	2,3,3',4',5-PENTACHLOROBIPHENYL (BZ-107)	FL
EPA 1668 A	2,3,3',4,4',5',6-HEPTACHLOROBIPHENYL (BZ-191)	FL
EPA 1668 A	2,3,3',4,4',5,5'-HEPTACHLOROBIPHENYL (BZ-189)	FL
EPA 1668 A	2,3,3',4,4',6-HEXACHLOROBIPHENYL (BZ-158)	FL
EPA 1668 A	2,3,3',4,5',6-HEXACHLOROBIPHENYL (BZ-161)	FL
EPA 1668 A	2,3,3',4,5,5'-HEXACHLOROBIPHENYL (BZ-159)	FL
EPA 1668 A	2,3,3',4-TETRACHLOROBIPHENYL (BZ-55)	FL
EPA 1668 A	2,3,3',5,5',6-HEXACHLOROBIPHENYL (BZ-165)	FL
EPA 1668 A	2,3,3',5,6-PENTACHLOROBIPHENYL (BZ-112)	FL
EPA 1668 A	2,3,4',5-TETRACHLOROBIPHENYL (BZ-63)	FL
EPA 1668 A	2,3,4'-TRICHLOROBIPHENYL (BZ-22)	FL
EPA 1668 A	2,3,4,4'-TETRACHLOROBIPHENYL (BZ-60)	FL
EPA 1668 A	2,3,6-TRICHLOROBIPHENYL (BZ-24)	FL
EPA 1668 A	2,4',5-TRICHLOROBIPHENYL (BZ-31)	FL
EPA 1668 A	2,4'-DICHLOROBIPHENYL (BZ-8)	FL
EPA 1668 A	2,5-DICHLOROBIPHENYL (BZ-9)	FL
EPA 1668 A	2-CHLOROBIPHENYL (BZ-1)	FL
EPA 1668 A	3,3',4,4',5-PENTACHLOROBIPHENYL (BZ-126)	FL
EPA 1668 A	3,3',4,5'-TETRACHLOROBIPHENYL (BZ-79)	FL
EPA 1668 A	2,3',4,4',5,5'-HEXACHLOROBIPHENYL (BZ-167)	FL
EPA 1668 A	2,3',4,4'-TETRACHLOROBIPHENYL (BZ-66)	FL
EPA 1668 A	2,3',4,5'-TETRACHLOROBIPHENYL (BZ-68)	FL
EPA 1668 A	2,3',4,5-TETRACHLOROBIPHENYL (BZ-67)	FL
EPA 1668 A	2,3',5'-TRICHLOROBIPHENYL (BZ-34)	FL
EPA 1668 A	2,3',6-TRICHLOROBIPHENYL (BZ-27)	FL
EPA 1668 A	2,3,3',4',5',6-HEXACHLOROBIPHENYL (BZ-164)	FL
EPA 1668 A	2,3,3',4',5,5'-HEXACHLOROBIPHENYL (BZ-162)	FL
EPA 1668 A	2,3,3',4'-TETRACHLOROBIPHENYL (BZ-56)	FL
EPA 1668 A	2,3,3',4,4',5,5',6-OCTACHLOROBIPHENYL (BZ-205)	FL
EPA 1668 A	2,3,3',4,4',5,6-HEPTACHLOROBIPHENYL (BZ-190)	FL
EPA 1668 A	2,3,3',4,4'-PENTACHLOROBIPHENYL (BZ-105)	FL
EPA 1668 A	2,3,3',4,5,5',6-HEPTACHLOROBIPHENYL (BZ-192)	FL
EPA 1668 A	2,3,3',4,5-PENTACHLOROBIPHENYL (BZ-106)	FL
EPA 1668 A	2,3,3',5'-TETRACHLOROBIPHENYL (BZ-58)	FL
EPA 1668 A	2,3,3',5,5'-PENTACHLOROBIPHENYL (BZ-111)	FL
EPA 1668 A	2,3,3',5-TETRACHLOROBIPHENYL (BZ-57)	FL
EPA 1668 A	2,3,4',6-TETRACHLOROBIPHENYL (BZ-64)	FL
EPA 1668 A	2,3,4,4',5-PENTACHLOROBIPHENYL (BZ-114)	FL
EPA 1668 A	2,3,5-TRICHLOROBIPHENYL (BZ-23)	FL
EPA 1668 A	2,3-DICHLOROBIPHENYL (BZ-5)	FL
EPA 1668 A	2,4',6-TRICHLOROBIPHENYL (BZ-32)	FL
EPA 1668 A	2,4-DICHLOROBIPHENYL (BZ-7)	FL
EPA 1668 A	2,6-DICHLOROBIPHENYL (BZ-10)	FL
EPA 1668 A	3,3',4,4',5,5'-HEXACHLOROBIPHENYL (BZ-169)	FL
EPA 1668 A	3,3',4,4'-TETRACHLOROBIPHENYL (BZ-77)	FL
EPA 1668 A	3,3',4,5,5'-PENTACHLOROBIPHENYL (BZ-127)	FL

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 1668 A	3,3',4,5-TETRACHLOROBIPHENYL (BZ-78)	FL
EPA 1668 A	3,3',5,5'-TETRACHLOROBIPHENYL (BZ-80)	FL
EPA 1668 A	3,3'-DICHLOROBIPHENYL (BZ-11)	FL
EPA 1668 A	3,4,4',5-TETRACHLOROBIPHENYL (BZ-81)	FL
EPA 1668 A	3,4,5-TRICHLOROBIPHENYL (BZ-38)	FL
EPA 1668 A	3-CHLOROBIPHENYL (BZ-2)	FL
EPA 1668 A	4-CHLOROBIPHENYL (BZ-3)	FL
EPA 1668 A	PCB-(108/119/86/97/125/87)	FL
EPA 1668 A	PCB-(113/90/101)	FL
EPA 1668 A	PCB-(128/166)	FL
EPA 1668 A	PCB-(134/143)	FL
EPA 1668 A	PCB-(139/140)	FL
EPA 1668 A	PCB-(153/168)	FL
EPA 1668 A	PCB-(171/173)	FL
EPA 1668 A	PCB-(183/185)	FL
EPA 1668 A	PCB-(21/33)	FL
EPA 1668 A	PCB-(28/20)	FL
EPA 1668 A	PCB-(41/40/71)	FL
EPA 1668 A	PCB-(45/51)	FL
EPA 1668 A	PCB-(59/62/75)	FL
EPA 1668 A	PCB-(69/49)	FL
EPA 1668 A	PCB-(88/91)	FL
EPA 1668 A - EXTENDED	PCB-(135/151)	FL
EPA 1668 A - EXTENDED	PCB-(93/100)	FL
EPA 1668 B	2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL (BZ-206)	FL
EPA 1668 B	2,2',3,3',4,4',5,6'-OCTACHLOROBIPHENYL (BZ-196)	FL
EPA 1668 B	2,2',3,3',4,4',5,6-OCTACHLOROBIPHENYL BZ-195)	FL
EPA 1668 B	2,2',3,3',4,4',6,6'-OCTACHLOROBIPHENYL (BZ-197)	FL
EPA 1668 B	2,2',3,3',4,5',6,6'-OCTACHLOROBIPHENYL (BZ-201)	FL
EPA 1668 B	2,2',3,3',4,5'-HEXACHLOROBIPHENYL (BZ-130)	FL
EPA 1668 B	2,2',3,3',4,5,5'-HEPTACHLOROBIPHENYL (BZ-172)	FL
EPA 1668 B	2,2',3,3',4,5,6,6'-OCTACHLOROBIPHENYL (BZ-200)	FL
EPA 1668 A	3,3',4-TRICHLOROBIPHENYL (BZ-35)	FL
EPA 1668 A	3,3',5-TRICHLOROBIPHENYL (BZ-36)	FL
EPA 1668 A	3,4',5-TRICHLOROBIPHENYL (BZ-39)	FL
EPA 1668 A	3,4,4'-TRICHLOROBIPHENYL (BZ-37)	FL
EPA 1668 A	3,5-DICHLOROBIPHENYL (BZ-14)	FL
EPA 1668 A	4,4'-DICHLOROBIPHENYL (BZ-15)	FL
EPA 1668 A	DECACHLOROBIPHENYL (BZ-209)	FL
EPA 1668 A	PCB-(110/115)	FL
EPA 1668 A	PCB-(117/116/85)	FL
EPA 1668 A	PCB-(13/12)	FL
EPA 1668 A	PCB-(138/163/129/160)	FL
EPA 1668 A	PCB-(147/149)	FL
EPA 1668 A	PCB-(156/157)	FL
EPA 1668 A	PCB-(180/193)	FL
EPA 1668 A	PCB-(198/199)	FL
EPA 1668 A	PCB-(26/29)	FL
EPA 1668 A	PCB-(30/18)	FL
EPA 1668 A	PCB-(44/47/65)	FL
EPA 1668 A	PCB-(50/53)	FL
EPA 1668 A	PCB-(61/70/74/76)	FL
EPA 1668 A	PCB-(83/99)	FL
EPA 1668 A - EXTENDED	PCB-(108/124)	FL
EPA 1668 A - EXTENDED	PCB-(43/73)	FL
EPA 1668 A - EXTENDED	PCB-(98/102)	FL
EPA 1668 B	2,2',3,3',4,4',5,5'-OCTACHLOROBIPHENYL (BZ-194)	FL
EPA 1668 B	2,2',3,3',4,4',5,6,6'-NONACHLOROBIPHENYL (BZ-207)	FL
EPA 1668 B	2,2',3,3',4,4',5-HEPTACHLOROBIPHENYL (BZ-170)	FL
EPA 1668 B	2,2',3,3',4,5',6'-HEPTACHLOROBIPHENYL (BZ-177)	FL
EPA 1668 B	2,2',3,3',4,5',6-HEPTACHLOROBIPHENYL (BZ-175)	FL
EPA 1668 B	2,2',3,3',4,5,5',6,6'-NONACHLOROBIPHENYL (BZ-208)	FL
EPA 1668 B	2,2',3,3',4,5,6'-HEPTACHLOROBIPHENYL (BZ-174)	FL
EPA 1668 B	2,2',3,3',4,6'-HEXACHLOROBIPHENYL (BZ-132)	FL

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EPA 1668 B	2,2',3,3',4,6,6'-HEPTACHLOROBIPHENYL (BZ-176)	FL
EPA 1668 B	2,2',3,3',4-PENTACHLOROBIPHENYL (BZ-82)	FL
EPA 1668 B	2,2',3,3',5,5',6-HEPTACHLOROBIPHENYL (BZ-178)	FL
EPA 1668 B	2,2',3,3',5,6,6'-HEPTACHLOROBIPHENYL (BZ-179)	FL
EPA 1668 B	2,2',3,3',6-PENTACHLOROBIPHENYL (BZ-84)	FL
EPA 1668 B	2,2',3,4',5,5'-HEXACHLOROBIPHENYL (BZ-146)	FL
EPA 1668 B	2,2',3,4',5,6,6'-HEPTACHLOROBIPHENYL (BZ-188)	FL
EPA 1668 B	2,2',3,4'-TETRACHLOROBIPHENYL (BZ-42)	FL
EPA 1668 B	2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL (BZ-182)	FL
EPA 1668 B	2,2',3,4,4',5,6-HEPTACHLOROBIPHENYL (BZ-181)	FL
EPA 1668 B	2,2',3,4,4',6,6'-HEPTACHLOROBIPHENYL (BZ-184)	FL
EPA 1668 B	2,2',3,4,5,5'-HEXACHLOROBIPHENYL (BZ-141)	FL
EPA 1668 B	2,2',3,4,5,6-HEXACHLOROBIPHENYL (BZ-142)	FL
EPA 1668 B	2,2',3,4,6,6'-HEXACHLOROBIPHENYL (BZ-145)	FL
EPA 1668 B	2,2',3,5,5'-PENTACHLOROBIPHENYL (BZ-92)	FL
EPA 1668 B	2,2',3,5,6,6'-HEXACHLOROBIPHENYL (BZ-152)	FL
EPA 1668 B	2,2',3,6,6'-PENTACHLOROBIPHENYL (BZ-96)	FL
EPA 1668 B	2,2',4,4',5,6'-HEXACHLOROBIPHENYL (BZ-154)	FL
EPA 1668 B	2,2',4,5',6-PENTACHLOROBIPHENYL (BZ-103)	FL
EPA 1668 B	2,2',4,6,6'-PENTACHLOROBIPHENYL (BZ-104)	FL
EPA 1668 B	2,2',5,5'-TETRACHLOROBIPHENYL (BZ-52)	FL
EPA 1668 B	2,2',6-TRICHLOROBIPHENYL (BZ-19)	FL
EPA 1668 B	2,3',4',5',6-PENTACHLOROBIPHENYL (BZ-125)	FL
EPA 1668 B	2,3',4,4',5,5'-HEXACHLOROBIPHENYL (BZ-167)	FL
EPA 1668 B	2,3',4,4'-TETRACHLOROBIPHENYL (BZ-66)	FL
EPA 1668 B	2,2',3,3',4,4,6-HEXACHLOROBIPHENYL (BZ-131)	FL
EPA 1668 B	2,2',3,3',5,5',6,6'-OCTACHLOROBIPHENYL (BZ-202)	FL
EPA 1668 B	2,2',3,3',5,5'-HEXACHLOROBIPHENYL (BZ-133)	FL
EPA 1668 B	2,2',3,3',6,6'-HEXACHLOROBIPHENYL (BZ-136)	FL
EPA 1668 B	2,2',3,4',5,5',6-HEPTACHLOROBIPHENYL (BZ-187)	FL
EPA 1668 B	2,2',3,4',5,6'-HEXACHLOROBIPHENYL (BZ-148)	FL
EPA 1668 B	2,2',3,4',6,6'-HEXACHLOROBIPHENYL (BZ-150)	FL
EPA 1668 B	2,2',3,4,4',5,5',6-OCTACHLOROBIPHENYL (BZ-203)	FL
EPA 1668 B	2,2',3,4,4',5,6,6'-OCTACHLOROBIPHENYL (BZ-204)	FL
EPA 1668 B	2,2',3,4,4',5-HEXACHLOROBIPHENYL (BZ-137)	FL
EPA 1668 B	2,2',3,4,5',6-HEXACHLOROBIPHENYL (BZ-144)	FL
EPA 1668 B	2,2',3,4,5,6,6'-HEPTACHLOROBIPHENYL (BZ-186)	FL
EPA 1668 B	2,2',3,4,6'-PENTACHLOROBIPHENYL (BZ-89)	FL
EPA 1668 B	2,2',3,5',6-PENTACHLOROBIPHENYL (BZ-95)	FL
EPA 1668 B	2,2',3,5,6'-PENTACHLOROBIPHENYL (BZ-94)	FL
EPA 1668 B	2,2',3,6'-TETRACHLOROBIPHENYL (BZ-46)	FL
EPA 1668 B	2,2',3-TRICHLOROBIPHENYL (BZ-16)	FL
EPA 1668 B	2,2',4,4',6,6'-HEXACHLOROBIPHENYL (BZ-155)	FL
EPA 1668 B	2,2',4,5-TETRACHLOROBIPHENYL (BZ-48)	FL
EPA 1668 B	2,2',4-TRICHLOROBIPHENYL (BZ-17)	FL
EPA 1668 B	2,2',6,6'-TETRACHLOROBIPHENYL (BZ-54)	FL
EPA 1668 B	2,2'-DICHLOROBIPHENYL (BZ-4)	FL
EPA 1668 B	2,3',4,4',5'-PENTACHLOROBIPHENYL (BZ-123)	FL
EPA 1668 B	2,3',4,4',5-PENTACHLOROBIPHENYL (BZ-118)	FL
EPA 1668 B	2,3',4,5',6-PENTACHLOROBIPHENYL (BZ-121)	FL

Testamerica Laboratories Inc.- Knoxville
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METHOD	ANALYTE	PRIMARY
EPA 1668 B	2,3',4,5'-TETRACHLOROBIPHENYL (BZ-68)	FL
EPA 1668 B	2,3',4,5-TETRACHLOROBIPHENYL (BZ-67)	FL
EPA 1668 B	2,3',5'-TRICHLOROBIPHENYL (BZ-34)	FL
EPA 1668 B	2,3',6-TRICHLOROBIPHENYL (BZ-27)	FL
EPA 1668 B	2,3,3',4',5',6-HEXACHLOROBIPHENYL (BZ-164)	FL
EPA 1668 B	2,3,3',4',5,5'-HEXACHLOROBIPHENYL (BZ-162)	FL
EPA 1668 B	2,3,3',4'-TETRACHLOROBIPHENYL (BZ-56)	FL
EPA 1668 B	2,3,3',4,4',5,5',6-OCTACHLOROBIPHENYL (BZ-205)	FL
EPA 1668 B	2,3,3',4,4',5,6-HEPTACHLOROBIPHENYL (BZ-190)	FL
EPA 1668 B	2,3,3',4,4'-PENTACHLOROBIPHENYL (BZ-105)	FL
EPA 1668 B	2,3,3',4,5,5',6-HEPTACHLOROBIPHENYL (BZ-192)	FL
EPA 1668 B	2,3,3',4,5-PENTACHLOROBIPHENYL (BZ-106)	FL
EPA 1668 B	2,3,3',5'-TETRACHLOROBIPHENYL (BZ-58)	FL
EPA 1668 B	2,3,3',5,5'-PENTACHLOROBIPHENYL (BZ-111)	FL
EPA 1668 B	2,3,3',5-TETRACHLOROBIPHENYL (BZ-57)	FL
EPA 1668 B	2,3,4',6-TETRACHLOROBIPHENYL (BZ-64)	FL
EPA 1668 B	2,3,4,4',5-PENTACHLOROBIPHENYL (BZ-114)	FL
EPA 1668 B	2,3,5-TRICHLOROBIPHENYL (BZ-23)	FL
EPA 1668 B	2,3-DICHLOROBIPHENYL (BZ-5)	FL
EPA 1668 B	2,4',6-TRICHLOROBIPHENYL (BZ-32)	FL
EPA 1668 B	2,4-DICHLOROBIPHENYL (BZ-7)	FL
EPA 1668 B	2,6-DICHLOROBIPHENYL (BZ-10)	FL
EPA 1668 B	3,3',4,4',5,5'-HEXACHLOROBIPHENYL (BZ-169)	FL
EPA 1668 B	3,3',4,4'-TETRACHLOROBIPHENYL (BZ-77)	FL
EPA 1668 B	3,3',4,5,5'-PENTACHLOROBIPHENYL (BZ-127)	FL
EPA 1668 B	3,3',4-TRICHLOROBIPHENYL (BZ-35)	FL
EPA 1668 B	3,3',5-TRICHLOROBIPHENYL (BZ-36)	FL
EPA 1668 B	3,4',5-TRICHLOROBIPHENYL (BZ-39)	FL
EPA 1668 B	2,3',4,5,5'-PENTACHLOROBIPHENYL (BZ-120)	FL
EPA 1668 B	2,3',4-TRICHLOROBIPHENYL (BZ-25)	FL
EPA 1668 B	2,3',5,5'-TETRACHLOROBIPHENYL (BZ-72)	FL
EPA 1668 B	2,3'-DICHLOROBIPHENYL (BZ-6)	FL
EPA 1668 B	2,3,3',4',5'-PENTACHLOROBIPHENYL (BZ-122)	FL
EPA 1668 B	2,3,3',4',5-PENTACHLOROBIPHENYL (BZ-107)	FL
EPA 1668 B	2,3,3',4,4',5',6-HEPTACHLOROBIPHENYL (BZ-191)	FL
EPA 1668 B	2,3,3',4,4',5,5'-HEPTACHLOROBIPHENYL (BZ-189)	FL
EPA 1668 B	2,3,3',4,4',6-HEXACHLOROBIPHENYL (BZ-158)	FL
EPA 1668 B	2,3,3',4,5',6-HEXACHLOROBIPHENYL (BZ-161)	FL
EPA 1668 B	2,3,3',4,5,5'-HEXACHLOROBIPHENYL (BZ-159)	FL
EPA 1668 B	2,3,3',4-TETRACHLOROBIPHENYL (BZ-55)	FL
EPA 1668 B	2,3,3',5,5',6-HEXACHLOROBIPHENYL (BZ-165)	FL
EPA 1668 B	2,3,3',5,6-PENTACHLOROBIPHENYL (BZ-112)	FL
EPA 1668 B	2,3,4',5-TETRACHLOROBIPHENYL (BZ-63)	FL
EPA 1668 B	2,3,4'-TRICHLOROBIPHENYL (BZ-22)	FL
EPA 1668 B	2,3,4,4'-TETRACHLOROBIPHENYL (BZ-60)	FL
EPA 1668 B	2,3,6-TRICHLOROBIPHENYL (BZ-24)	FL
EPA 1668 B	2,4',5-TRICHLOROBIPHENYL (BZ-31)	FL
EPA 1668 B	2,4'-DICHLOROBIPHENYL (BZ-8)	FL
EPA 1668 B	2,5-DICHLOROBIPHENYL (BZ-9)	FL
EPA 1668 B	2-CHLOROBIPHENYL (BZ-1)	FL
EPA 1668 B	3,3',4,4',5-PENTACHLOROBIPHENYL (BZ-126)	FL
EPA 1668 B	3,3',4,5'-TETRACHLOROBIPHENYL (BZ-79)	FL
EPA 1668 B	3,3',4,5-TETRACHLOROBIPHENYL (BZ-78)	FL
EPA 1668 B	3,3',5,5'-TETRACHLOROBIPHENYL (BZ-80)	FL
EPA 1668 B	3,3'-DICHLOROBIPHENYL (BZ-11)	FL
EPA 1668 B	3,4,4',5-TETRACHLOROBIPHENYL (BZ-81)	FL

Scope of Accreditation

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METHOD	ANALYTE	PRIMARY
EPA 1668 B	3,4,5-TRICHLOROBIPHENYL (BZ-38)	FL
EPA 1668 B	3-CHLOROBIPHENYL (BZ-2)	FL
EPA 1668 B	4-CHLOROBIPHENYL (BZ-3)	FL
EPA 1668 B	PCB-(108/119/86/97/125/87)	FL
EPA 1668 B	PCB-(113/90/101)	FL
EPA 1668 B	PCB-(128/166)	FL
EPA 1668 B	PCB-(134/143)	FL
EPA 1668 B	PCB-(139/140)	FL
EPA 1668 B	PCB-(153/168)	FL
EPA 1668 B	PCB-(171/173)	FL
EPA 1668 B	PCB-(183/185)	FL
EPA 1668 B	PCB-(21/33)	FL
EPA 1668 B	PCB-(28/20)	FL
EPA 1668 B	PCB-(41/40/71)	FL
EPA 1668 B	PCB-(45/51)	FL
EPA 1668 B	PCB-(59/62/75)	FL
EPA 1668 B	PCB-(69/49)	FL
EPA 1668 B	PCB-(88/91)	FL
EPA 1668 B - EXTENDED	PCB-(135/151)	FL
EPA 1668 B - EXTENDED	PCB-(93/100)	FL
EPA 8290	1,2,3,4,6,7,8,9-OCTACHLORODIBENZ O-P-DIOXIN (OCDD)	FL
EPA 8290	1,2,3,4,6,7,8-HEPTACHLORODIBENZ O-P-DIOXIN (1,2,3,4,6,7,8-HPCDD)	FL
EPA 8290	1,2,3,4,7,8,9-HEPTACHLORODIBENZ OFURAN (1,2,3,4,7,8,9-HPCDF)	FL
EPA 8290	1,2,3,4,7,8-HEXACHLORODIBENZOF URAN (1,2,3,4,7,8-HXCDF)	FL
EPA 8290	1,2,3,6,7,8-HEXACHLORODIBENZOF URAN (1,2,3,6,7,8-HXCDF)	FL
EPA 8290	1,2,3,7,8,9-HEXACHLORODIBENZOF URAN (1,2,3,7,8,9-HXCDF)	FL
EPA 8290	1,2,3,7,8-PENTACHLORODIBENZOF URAN (1,2,3,7,8-PECDF)	FL
EPA 8290	2,3,4,7,8-PENTACHLORODIBENZOF URAN	FL
EPA 8290	2,3,7,8-TETRACHLORODIBENZOFUR AN (2,3,7,8-TCDF)	FL
EPA 8290 A	1,2,3,4,6,7,8,9-OCTACHLORODIBENZ OFURAN (OCDF)	FL
EPA 8290 A	1,2,3,4,6,7,8-HEPTACHLORODIBENZ OFURAN (1,2,3,4,6,7,8-HPCDF)	FL
EPA 1668 B	3,4,4'-TRICHLOROBIPHENYL (BZ-37)	FL
EPA 1668 B	3,5-DICHLOROBIPHENYL (BZ-14)	FL
EPA 1668 B	4,4'-DICHLOROBIPHENYL (BZ-15)	FL
EPA 1668 B	DECACHLOROBIPHENYL (BZ-209)	FL
EPA 1668 B	PCB-(110/115)	FL
EPA 1668 B	PCB-(117/116/85)	FL
EPA 1668 B	PCB-(13/12)	FL
EPA 1668 B	PCB-(138/163/129/160)	FL
EPA 1668 B	PCB-(147/149)	FL
EPA 1668 B	PCB-(156/157)	FL
EPA 1668 B	PCB-(180/193)	FL
EPA 1668 B	PCB-(198/199)	FL
EPA 1668 B	PCB-(26/29)	FL
EPA 1668 B	PCB-(30/18)	FL
EPA 1668 B	PCB-(44/47/65)	FL
EPA 1668 B	PCB-(50/53)	FL
EPA 1668 B	PCB-(61/70/74/76)	FL
EPA 1668 B	PCB-(83/99)	FL
EPA 1668 B - EXTENDED	PCB-(108/124)	FL
EPA 1668 B - EXTENDED	PCB-(43/73)	FL
EPA 1668 B - EXTENDED	PCB-(98/102)	FL
EPA 8290	1,2,3,4,6,7,8,9-OCTACHLORODIBENZ OFURAN (OCDF)	FL
EPA 8290	1,2,3,4,6,7,8-HEPTACHLORODIBENZ OFURAN (1,2,3,4,6,7,8-HPCDF)	FL
EPA 8290	1,2,3,4,7,8-HEXACHLORODIBENZO-P -DIOXIN (1,2,3,4,7,8-HXCDD)	FL
EPA 8290	1,2,3,6,7,8-HEXACHLORODIBENZO-P -DIOXIN(1,2,3,6,7,8-HXCDD)	FL
EPA 8290	1,2,3,7,8,9-HEXACHLORODIBENZO-P -DIOXIN (1,2,3,7,8,9-HXCDD)	FL
EPA 8290	1,2,3,7,8-PENTACHLORODIBENZO-P -DIOXIN (1,2,3,7,8-PECDD)	FL
EPA 8290	2,3,4,6,7,8-HEXACHLORODIBENZOF URAN (2,3,4,6,7,8-HXCDF)	FL
EPA 8290	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (2,3,7,8-TCDD)	FL
EPA 8290 A	1,2,3,4,6,7,8,9-OCTACHLORODIBENZ O-P-DIOXIN (OCDD)	FL
EPA 8290 A	1,2,3,4,6,7,8-HEPTACHLORODIBENZ O-P-DIOXIN (1,2,3,4,6,7,8-HPCDD)	FL
EPA 8290 A	1,2,3,4,7,8,9-HEPTACHLORODIBENZ OFURAN (1,2,3,4,7,8,9-HPCDF)	FL

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NON-POTABLE WATER

METHOD	ANALYTE	PRIMARY
EPA 8290 A	1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN (1,2,3,4,7,8-HXCDD)	FL
EPA 8290 A	1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN(1,2,3,6,7,8-HXCDD)	FL
EPA 8290 A	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN (1,2,3,7,8,9-HXCDD)	FL
EPA 8290 A	1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN (1,2,3,7,8-PECDD)	FL
EPA 8290 A	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN (2,3,4,6,7,8-HXCDF)	FL
EPA 8290 A	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (2,3,7,8-TCDD)	FL
EPA 8290 A - EXTENDED	TOTAL HEPTACHLORODIBENZO-P-DIOXIN (HPCDD, TOTAL)	FL
EPA 8290 A - EXTENDED	TOTAL HEXACHLORODIBENZO-P-DIOXIN (HXCDD, TOTAL)	FL
EPA 8290 A - EXTENDED	TOTAL PENTACHLORODIBENZO-P-DIOXIN (PECDD, TOTAL)	FL
EPA 8290 A - EXTENDED	TOTAL TETRACHLORODIBENZO-P-DIOXIN (TCDD, TOTAL)	FL
EPA 8290 A	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN (1,2,3,4,7,8-HXCDF)	FL
EPA 8290 A	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN (1,2,3,6,7,8-HXCDF)	FL
EPA 8290 A	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN (1,2,3,7,8,9-HXCDF)	FL
EPA 8290 A	1,2,3,7,8-PENTACHLORODIBENZOFURAN (1,2,3,7,8-PECDF)	FL
EPA 8290 A	2,3,4,7,8-PENTACHLORODIBENZOFURAN	FL
EPA 8290 A	2,3,7,8-TETRACHLORODIBENZOFURAN (2,3,7,8-TCDF)	FL
EPA 8290 A - EXTENDED	TOTAL HEPTACHLORODIBENZOFURAN (HPCDF, TOTAL)	FL
EPA 8290 A - EXTENDED	TOTAL HEXACHLORODIBENZOFURAN (HXCDF, TOTAL)	FL
EPA 8290 A - EXTENDED	TOTAL PENTACHLORODIBENZOFURAN (PECDF, TOTAL)	FL
EPA 8290 A - EXTENDED	TOTAL TETRACHLORODIBENZOFURAN (TCDF, TOTAL)	FL

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 1613 B	1,2,3,4,6,7,8,9-OCTACHLORODIBENZO-P-DIOXIN (OCDD)	FL
EPA 1613 B	1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN (1,2,3,4,6,7,8-HPCDD)	FL
EPA 1613 B	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN (1,2,3,4,7,8,9-HPCDF)	FL
EPA 1613 B	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN (1,2,3,4,7,8-HXCDF)	FL
EPA 1613 B	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN (1,2,3,6,7,8-HXCDF)	FL
EPA 1613 B	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN (1,2,3,7,8,9-HXCDF)	FL
EPA 1613 B	1,2,3,7,8-PENTACHLORODIBENZOFURAN (1,2,3,7,8-PECDF)	FL
EPA 1613 B	2,3,4,7,8-PENTACHLORODIBENZOFURAN	FL
EPA 1613 B	2,3,7,8-TETRACHLORODIBENZOFURAN (2,3,7,8-TCDF)	FL
EPA 1668 A	2,2',3,3',4,4',5,5'-OCTACHLOROBIPHENYL (BZ-194)	FL
EPA 1668 A	2,2',3,3',4,4',5,6,6'-NONACHLOROBIPHENYL (BZ-207)	FL
EPA 1613 B	1,2,3,4,6,7,8,9-OCTACHLORODIBENZOFURAN (OCDF)	FL
EPA 1613 B	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN (1,2,3,4,6,7,8-HPCDF)	FL
EPA 1613 B	1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN (1,2,3,4,7,8-HXCDD)	FL
EPA 1613 B	1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN(1,2,3,6,7,8-HXCDD)	FL
EPA 1613 B	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN (1,2,3,7,8,9-HXCDD)	FL
EPA 1613 B	1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN (1,2,3,7,8-PECDD)	FL
EPA 1613 B	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN (2,3,4,6,7,8-HXCDF)	FL
EPA 1613 B	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (2,3,7,8-TCDD)	FL
EPA 1668 A	2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL (BZ-206)	FL
EPA 1668 A	2,2',3,3',4,4',5,6'-OCTACHLOROBIPHENYL (BZ-196)	FL
EPA 1668 A	2,2',3,3',4,4',5,6-OCTACHLOROBIPHENYL BZ-195)	FL

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 1668 A	2,2',3,3',4,4',5-HEPTACHLOROBIPHENYL (BZ-170)	FL
EPA 1668 A	2,2',3,3',4,5',6'-HEPTACHLOROBIPHENYL (BZ-177)	FL
EPA 1668 A	2,2',3,3',4,5',6-HEPTACHLOROBIPHENYL (BZ-175)	FL
EPA 1668 A	2,2',3,3',4,5,5',6,6'-NONACHLOROBIPHENYL (BZ-208)	FL
EPA 1668 A	2,2',3,3',4,5,6'-HEPTACHLOROBIPHENYL (BZ-174)	FL
EPA 1668 A	2,2',3,3',4,6'-HEXACHLOROBIPHENYL (BZ-132)	FL
EPA 1668 A	2,2',3,3',4,6-HEXACHLOROBIPHENYL (BZ-131)	FL
EPA 1668 A	2,2',3,3',5,5',6,6'-OCTACHLOROBIPHENYL (BZ-202)	FL
EPA 1668 A	2,2',3,3',5,5'-HEXACHLOROBIPHENYL (BZ-133)	FL
EPA 1668 A	2,2',3,3',6,6'-HEXACHLOROBIPHENYL (BZ-136)	FL
EPA 1668 A	2,2',3,4',5,5',6-HEPTACHLOROBIPHENYL (BZ-187)	FL
EPA 1668 A	2,2',3,4',5,6'-HEXACHLOROBIPHENYL (BZ-148)	FL
EPA 1668 A	2,2',3,4',6,6'-HEXACHLOROBIPHENYL (BZ-150)	FL
EPA 1668 A	2,2',3,4,4',5,5',6-OCTACHLOROBIPHENYL (BZ-203)	FL
EPA 1668 A	2,2',3,4,4',5,6,6'-OCTACHLOROBIPHENYL (BZ-204)	FL
EPA 1668 A	2,2',3,4,4',5-HEXACHLOROBIPHENYL (BZ-137)	FL
EPA 1668 A	2,2',3,4,5',6-HEXACHLOROBIPHENYL (BZ-144)	FL
EPA 1668 A	2,2',3,4,5,6,6'-HEPTACHLOROBIPHENYL (BZ-186)	FL
EPA 1668 A	2,2',3,4,6'-PENTACHLOROBIPHENYL (BZ-89)	FL
EPA 1668 A	2,2',3,5',6-PENTACHLOROBIPHENYL (BZ-95)	FL
EPA 1668 A	2,2',3,5,6'-PENTACHLOROBIPHENYL (BZ-94)	FL
EPA 1668 A	2,2',3,6'-TETRACHLOROBIPHENYL (BZ-46)	FL
EPA 1668 A	2,2',3-TRICHLOROBIPHENYL (BZ-16)	FL
EPA 1668 A	2,2',4,4',6,6'-HEXACHLOROBIPHENYL (BZ-155)	FL
EPA 1668 A	2,2',4,5-TETRACHLOROBIPHENYL (BZ-48)	FL
EPA 1668 A	2,2',3,3',4,4',6,6'-OCTACHLOROBIPHENYL (BZ-197)	FL
EPA 1668 A	2,2',3,3',4,5',6,6'-OCTACHLOROBIPHENYL (BZ-201)	FL
EPA 1668 A	2,2',3,3',4,5'-HEXACHLOROBIPHENYL (BZ-130)	FL
EPA 1668 A	2,2',3,3',4,5,5'-HEPTACHLOROBIPHENYL (BZ-172)	FL
EPA 1668 A	2,2',3,3',4,5,6,6'-OCTACHLOROBIPHENYL (BZ-200)	FL
EPA 1668 A	2,2',3,3',4,6,6'-HEPTACHLOROBIPHENYL (BZ-176)	FL
EPA 1668 A	2,2',3,3',4-PENTACHLOROBIPHENYL (BZ-82)	FL
EPA 1668 A	2,2',3,3',5,5',6-HEPTACHLOROBIPHENYL (BZ-178)	FL
EPA 1668 A	2,2',3,3',5,6,6'-HEPTACHLOROBIPHENYL (BZ-179)	FL
EPA 1668 A	2,2',3,3',6-PENTACHLOROBIPHENYL (BZ-84)	FL
EPA 1668 A	2,2',3,4',5,5'-HEXACHLOROBIPHENYL (BZ-146)	FL
EPA 1668 A	2,2',3,4',5,6,6'-HEPTACHLOROBIPHENYL (BZ-188)	FL
EPA 1668 A	2,2',3,4'-TETRACHLOROBIPHENYL (BZ-42)	FL
EPA 1668 A	2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL (BZ-182)	FL
EPA 1668 A	2,2',3,4,4',5,6-HEPTACHLOROBIPHENYL (BZ-181)	FL
EPA 1668 A	2,2',3,4,4',6,6'-HEPTACHLOROBIPHENYL (BZ-184)	FL
EPA 1668 A	2,2',3,4,5,5'-HEXACHLOROBIPHENYL (BZ-141)	FL
EPA 1668 A	2,2',3,4,5,6-HEXACHLOROBIPHENYL (BZ-142)	FL
EPA 1668 A	2,2',3,4,6,6'-HEXACHLOROBIPHENYL (BZ-145)	FL
EPA 1668 A	2,2',3,5,5'-PENTACHLOROBIPHENYL (BZ-92)	FL
EPA 1668 A	2,2',3,5,6,6'-HEXACHLOROBIPHENYL (BZ-152)	FL
EPA 1668 A	2,2',3,6,6'-PENTACHLOROBIPHENYL (BZ-96)	FL
EPA 1668 A	2,2',4,4',5,6'-HEXACHLOROBIPHENYL (BZ-154)	FL
EPA 1668 A	2,2',4,5',6-PENTACHLOROBIPHENYL (BZ-103)	FL
EPA 1668 A	2,2',4,6,6'-PENTACHLOROBIPHENYL (BZ-104)	FL

Scope of Accreditation

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Testamerica Laboratories Inc.- Knoxville
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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 1668 A	2,2',4-TRICHLOROBIPHENYL (BZ-17)	FL
EPA 1668 A	2,2',6,6'-TETRACHLOROBIPHENYL (BZ-54)	FL
EPA 1668 A	2,2'-DICHLOROBIPHENYL (BZ-4)	FL
EPA 1668 A	2,3',4,4',5'-PENTACHLOROBIPHENYL (BZ-123)	FL
EPA 1668 A	2,3',4,4',5-PENTACHLOROBIPHENYL (BZ-118)	FL
EPA 1668 A	2,3',4,5',6-PENTACHLOROBIPHENYL (BZ-121)	FL
EPA 1668 A	2,3',4,5,5'-PENTACHLOROBIPHENYL (BZ-120)	FL
EPA 1668 A	2,3',4-TRICHLOROBIPHENYL (BZ-25)	FL
EPA 1668 A	2,3',5,5'-TETRACHLOROBIPHENYL (BZ-72)	FL
EPA 1668 A	2,3'-DICHLOROBIPHENYL (BZ-6)	FL
EPA 1668 A	2,3,3',4',5'-PENTACHLOROBIPHENYL (BZ-122)	FL
EPA 1668 A	2,3,3',4',5-PENTACHLOROBIPHENYL (BZ-107)	FL
EPA 1668 A	2,3,3',4,4',5',6-HEPTACHLOROBIPHENYL (BZ-191)	FL
EPA 1668 A	2,3,3',4,4',5,5'-HEPTACHLOROBIPHENYL (BZ-189)	FL
EPA 1668 A	2,3,3',4,4',6-HEXACHLOROBIPHENYL (BZ-158)	FL
EPA 1668 A	2,3,3',4,5',6-HEXACHLOROBIPHENYL (BZ-161)	FL
EPA 1668 A	2,3,3',4,5,5'-HEXACHLOROBIPHENYL (BZ-159)	FL
EPA 1668 A	2,3,3',4-TETRACHLOROBIPHENYL (BZ-55)	FL
EPA 1668 A	2,3,3',5,5',6-HEXACHLOROBIPHENYL (BZ-165)	FL
EPA 1668 A	2,3,3',5,6-PENTACHLOROBIPHENYL (BZ-112)	FL
EPA 1668 A	2,3,4',5-TETRACHLOROBIPHENYL (BZ-63)	FL
EPA 1668 A	2,3,4'-TRICHLOROBIPHENYL (BZ-22)	FL
EPA 1668 A	2,3,4,4'-TETRACHLOROBIPHENYL (BZ-60)	FL
EPA 1668 A	2,3,6-TRICHLOROBIPHENYL (BZ-24)	FL
EPA 1668 A	2,4',5-TRICHLOROBIPHENYL (BZ-31)	FL
EPA 1668 A	2,4'-DICHLOROBIPHENYL (BZ-8)	FL
EPA 1668 A	2,5-DICHLOROBIPHENYL (BZ-9)	FL
EPA 1668 A	2,2',5,5'-TETRACHLOROBIPHENYL (BZ-52)	FL
EPA 1668 A	2,2',6-TRICHLOROBIPHENYL (BZ-19)	FL
EPA 1668 A	2,3',4',5',6-PENTACHLOROBIPHENYL (BZ-125)	FL
EPA 1668 A	2,3',4,4',5,5'-HEXACHLOROBIPHENYL (BZ-167)	FL
EPA 1668 A	2,3',4,4'-TETRACHLOROBIPHENYL (BZ-66)	FL
EPA 1668 A	2,3',4,5'-TETRACHLOROBIPHENYL (BZ-68)	FL
EPA 1668 A	2,3',4,5-TETRACHLOROBIPHENYL (BZ-67)	FL
EPA 1668 A	2,3',5'-TRICHLOROBIPHENYL (BZ-34)	FL
EPA 1668 A	2,3',6-TRICHLOROBIPHENYL (BZ-27)	FL
EPA 1668 A	2,3,3',4',5',6-HEXACHLOROBIPHENYL (BZ-164)	FL
EPA 1668 A	2,3,3',4',5,5'-HEXACHLOROBIPHENYL (BZ-162)	FL
EPA 1668 A	2,3,3',4'-TETRACHLOROBIPHENYL (BZ-56)	FL
EPA 1668 A	2,3,3',4,4',5,5',6-OCTACHLOROBIPHENYL (BZ-205)	FL
EPA 1668 A	2,3,3',4,4',5,6-HEPTACHLOROBIPHENYL (BZ-190)	FL
EPA 1668 A	2,3,3',4,4'-PENTACHLOROBIPHENYL (BZ-105)	FL
EPA 1668 A	2,3,3',4,5,5',6-HEPTACHLOROBIPHENYL (BZ-192)	FL
EPA 1668 A	2,3,3',4,5-PENTACHLOROBIPHENYL (BZ-106)	FL
EPA 1668 A	2,3,3',5,5'-TETRACHLOROBIPHENYL (BZ-58)	FL
EPA 1668 A	2,3,3',5,5'-PENTACHLOROBIPHENYL (BZ-111)	FL
EPA 1668 A	2,3,3',5-TETRACHLOROBIPHENYL (BZ-57)	FL
EPA 1668 A	2,3,4',6-TETRACHLOROBIPHENYL (BZ-64)	FL
EPA 1668 A	2,3,4,4',5-PENTACHLOROBIPHENYL (BZ-114)	FL
EPA 1668 A	2,3,5-TRICHLOROBIPHENYL (BZ-23)	FL
EPA 1668 A	2,3-DICHLOROBIPHENYL (BZ-5)	FL
EPA 1668 A	2,4',6-TRICHLOROBIPHENYL (BZ-32)	FL
EPA 1668 A	2,4-DICHLOROBIPHENYL (BZ-7)	FL
EPA 1668 A	2,6-DICHLOROBIPHENYL (BZ-10)	FL

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SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 1668 A	2-CHLOROBIPHENYL (BZ-1)	FL
EPA 1668 A	3,3',4,4',5-PENTACHLOROBIPHENYL (BZ-126)	FL
EPA 1668 A	3,3',4,5'-TETRACHLOROBIPHENYL (BZ-79)	FL
EPA 1668 A	3,3',4,5-TETRACHLOROBIPHENYL (BZ-78)	FL
EPA 1668 A	3,3',5,5'-TETRACHLOROBIPHENYL (BZ-80)	FL
EPA 1668 A	3,3'-DICHLOROBIPHENYL (BZ-11)	FL
EPA 1668 A	3,4,4',5-TETRACHLOROBIPHENYL (BZ-81)	FL
EPA 1668 A	3,4,5-TRICHLOROBIPHENYL (BZ-38)	FL
EPA 1668 A	3-CHLOROBIPHENYL (BZ-2)	FL
EPA 1668 A	4-CHLOROBIPHENYL (BZ-3)	FL
EPA 1668 A	PCB-(108/119/86/97/125/87)	FL
EPA 1668 A	PCB-(113/90/101)	FL
EPA 1668 A	PCB-(128/166)	FL
EPA 1668 A	PCB-(134/143)	FL
EPA 1668 A	PCB-(139/140)	FL
EPA 1668 A	PCB-(153/168)	FL
EPA 1668 A	PCB-(171/173)	FL
EPA 1668 A	PCB-(183/185)	FL
EPA 1668 A	PCB-(21/33)	FL
EPA 1668 A	PCB-(28/20)	FL
EPA 1668 A	PCB-(41/40/71)	FL
EPA 1668 A	PCB-(45/51)	FL
EPA 1668 A	PCB-(59/62/75)	FL
EPA 1668 A	PCB-(69/49)	FL
EPA 1668 A	PCB-(88/91)	FL
EPA 1668 A - EXTENDED	PCB-(135/151)	FL
EPA 1668 A - EXTENDED	PCB-(93/100)	FL
EPA 1668 B	2,2',3,3',4,4',5,5',6-NONACHLOROBIPHENYL (BZ-206)	FL
EPA 1668 B	2,2',3,3',4,4',5,6'-OCTACHLOROBIPHENYL (BZ-196)	FL
EPA 1668 B	2,2',3,3',4,4',5,6-OCTACHLOROBIPHENYL BZ-195)	FL
EPA 1668 B	2,2',3,3',4,4',6,6'-OCTACHLOROBIPHENYL (BZ-197)	FL
EPA 1668 B	2,2',3,3',4,5',6,6'-OCTACHLOROBIPHENYL (BZ-201)	FL
EPA 1668 A	3,3',4,4',5,5'-HEXACHLOROBIPHENYL (BZ-169)	FL
EPA 1668 A	3,3',4,4'-TETRACHLOROBIPHENYL (BZ-77)	FL
EPA 1668 A	3,3',4,5,5'-PENTACHLOROBIPHENYL (BZ-127)	FL
EPA 1668 A	3,3',4-TRICHLOROBIPHENYL (BZ-35)	FL
EPA 1668 A	3,3',5-TRICHLOROBIPHENYL (BZ-36)	FL
EPA 1668 A	3,4',5-TRICHLOROBIPHENYL (BZ-39)	FL
EPA 1668 A	3,4,4'-TRICHLOROBIPHENYL (BZ-37)	FL
EPA 1668 A	3,5-DICHLOROBIPHENYL (BZ-14)	FL
EPA 1668 A	4,4'-DICHLOROBIPHENYL (BZ-15)	FL
EPA 1668 A	DECACHLOROBIPHENYL (BZ-209)	FL
EPA 1668 A	PCB-(110/115)	FL
EPA 1668 A	PCB-(117/116/85)	FL
EPA 1668 A	PCB-(13/12)	FL
EPA 1668 A	PCB-(138/163/129/160)	FL
EPA 1668 A	PCB-(147/149)	FL
EPA 1668 A	PCB-(156/157)	FL
EPA 1668 A	PCB-(180/193)	FL
EPA 1668 A	PCB-(198/199)	FL
EPA 1668 A	PCB-(26/29)	FL
EPA 1668 A	PCB-(30/18)	FL
EPA 1668 A	PCB-(44/47/65)	FL
EPA 1668 A	PCB-(50/53)	FL
EPA 1668 A	PCB-(61/70/74/76)	FL
EPA 1668 A	PCB-(83/99)	FL
EPA 1668 A - EXTENDED	PCB-(108/124)	FL
EPA 1668 A - EXTENDED	PCB-(43/73)	FL
EPA 1668 A - EXTENDED	PCB-(98/102)	FL
EPA 1668 B	2,2',3,3',4,4',5,5'-OCTACHLOROBIPHENYL (BZ-194)	FL
EPA 1668 B	2,2',3,3',4,4',5,6,6'-NONACHLOROBIPHENYL (BZ-207)	FL
EPA 1668 B	2,2',3,3',4,4',5-HEPTACHLOROBIPHENYL (BZ-170)	FL
EPA 1668 B	2,2',3,3',4,5',6'-HEPTACHLOROBIPHENYL (BZ-177)	FL
EPA 1668 B	2,2',3,3',4,5',6-HEPTACHLOROBIPHENYL (BZ-175)	FL

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EPA 1668 B	2,2',3,3',4,5'-HEXACHLOROBIPHENYL (BZ-130)	FL
EPA 1668 B	2,2',3,3',4,5,5'-HEPTACHLOROBIPHENYL (BZ-172)	FL
EPA 1668 B	2,2',3,3',4,5,6,6'-OCTACHLOROBIPHENYL (BZ-200)	FL
EPA 1668 B	2,2',3,3',4,6,6'-HEPTACHLOROBIPHENYL (BZ-176)	FL
EPA 1668 B	2,2',3,3',4-PENTACHLOROBIPHENYL (BZ-82)	FL
EPA 1668 B	2,2',3,3',5,5',6-HEPTACHLOROBIPHENYL (BZ-178)	FL
EPA 1668 B	2,2',3,3',5,6,6'-HEPTACHLOROBIPHENYL (BZ-179)	FL
EPA 1668 B	2,2',3,3',6-PENTACHLOROBIPHENYL (BZ-84)	FL
EPA 1668 B	2,2',3,4',5,5'-HEXACHLOROBIPHENYL (BZ-146)	FL
EPA 1668 B	2,2',3,4',5,6,6'-HEPTACHLOROBIPHENYL (BZ-188)	FL
EPA 1668 B	2,2',3,4'-TETRACHLOROBIPHENYL (BZ-42)	FL
EPA 1668 B	2,2',3,4,4',5,6'-HEPTACHLOROBIPHENYL (BZ-182)	FL
EPA 1668 B	2,2',3,4,4',5,6-HEPTACHLOROBIPHENYL (BZ-181)	FL
EPA 1668 B	2,2',3,4,4',6,6'-HEPTACHLOROBIPHENYL (BZ-184)	FL
EPA 1668 B	2,2',3,4,5,5'-HEXACHLOROBIPHENYL (BZ-141)	FL
EPA 1668 B	2,2',3,4,5,6-HEXACHLOROBIPHENYL (BZ-142)	FL
EPA 1668 B	2,2',3,4,6,6'-HEXACHLOROBIPHENYL (BZ-145)	FL
EPA 1668 B	2,2',3,5,5'-PENTACHLOROBIPHENYL (BZ-92)	FL
EPA 1668 B	2,2',3,5,6,6'-HEXACHLOROBIPHENYL (BZ-152)	FL
EPA 1668 B	2,2',3,6,6'-PENTACHLOROBIPHENYL (BZ-96)	FL
EPA 1668 B	2,2',4,4',5,6'-HEXACHLOROBIPHENYL (BZ-154)	FL
EPA 1668 B	2,2',4,5',6-PENTACHLOROBIPHENYL (BZ-103)	FL
EPA 1668 B	2,2',4,6,6'-PENTACHLOROBIPHENYL (BZ-104)	FL
EPA 1668 B	2,2',5,5'-TETRACHLOROBIPHENYL (BZ-52)	FL
EPA 1668 B	2,2',6-TRICHLOROBIPHENYL (BZ-19)	FL
EPA 1668 B	2,2',3,3',4,5,5',6,6'-NONACHLOROBIPHENYL (BZ-208)	FL
EPA 1668 B	2,2',3,3',4,5,6'-HEPTACHLOROBIPHENYL (BZ-174)	FL
EPA 1668 B	2,2',3,3',4,6'-HEXACHLOROBIPHENYL (BZ-132)	FL
EPA 1668 B	2,2',3,3',4,6-HEXACHLOROBIPHENYL (BZ-131)	FL
EPA 1668 B	2,2',3,3',5,5',6,6'-OCTACHLOROBIPHENYL (BZ-202)	FL
EPA 1668 B	2,2',3,3',5,5'-HEXACHLOROBIPHENYL (BZ-133)	FL
EPA 1668 B	2,2',3,3',6,6'-HEXACHLOROBIPHENYL (BZ-136)	FL
EPA 1668 B	2,2',3,4',5,5',6-HEPTACHLOROBIPHENYL (BZ-187)	FL
EPA 1668 B	2,2',3,4',5,6'-HEXACHLOROBIPHENYL (BZ-148)	FL
EPA 1668 B	2,2',3,4',6,6'-HEXACHLOROBIPHENYL (BZ-150)	FL
EPA 1668 B	2,2',3,4,4',5,5',6-OCTACHLOROBIPHENYL (BZ-203)	FL
EPA 1668 B	2,2',3,4,4',5,6,6'-OCTACHLOROBIPHENYL (BZ-204)	FL
EPA 1668 B	2,2',3,4,4',5-HEXACHLOROBIPHENYL (BZ-137)	FL
EPA 1668 B	2,2',3,4,5',6-HEXACHLOROBIPHENYL (BZ-144)	FL
EPA 1668 B	2,2',3,4,5,6,6'-HEPTACHLOROBIPHENYL (BZ-186)	FL
EPA 1668 B	2,2',3,4,6'-PENTACHLOROBIPHENYL (BZ-89)	FL
EPA 1668 B	2,2',3,5',6-PENTACHLOROBIPHENYL (BZ-95)	FL
EPA 1668 B	2,2',3,5,6'-PENTACHLOROBIPHENYL (BZ-94)	FL
EPA 1668 B	2,2',3,6'-TETRACHLOROBIPHENYL (BZ-46)	FL
EPA 1668 B	2,2',3-TRICHLOROBIPHENYL (BZ-16)	FL
EPA 1668 B	2,2',4,4',6,6'-HEXACHLOROBIPHENYL (BZ-155)	FL
EPA 1668 B	2,2',4,5-TETRACHLOROBIPHENYL (BZ-48)	FL
EPA 1668 B	2,2',4-TRICHLOROBIPHENYL (BZ-17)	FL
EPA 1668 B	2,2',6,6'-TETRACHLOROBIPHENYL (BZ-54)	FL
EPA 1668 B	2,2'-DICHLOROBIPHENYL (BZ-4)	FL

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METHOD	ANALYTE	PRIMARY
EPA 1668 B	2,3',4',5',6-PENTACHLOROBIPHENYL (BZ-125)	FL
EPA 1668 B	2,3',4,4',5,5'-HEXACHLOROBIPHENYL (BZ-167)	FL
EPA 1668 B	2,3',4,4'-TETRACHLOROBIPHENYL (BZ-66)	FL
EPA 1668 B	2,3',4,5'-TETRACHLOROBIPHENYL (BZ-68)	FL
EPA 1668 B	2,3',4,5-TETRACHLOROBIPHENYL (BZ-67)	FL
EPA 1668 B	2,3',5'-TRICHLOROBIPHENYL (BZ-34)	FL
EPA 1668 B	2,3',6-TRICHLOROBIPHENYL (BZ-27)	FL
EPA 1668 B	2,3,3',4',5',6-HEXACHLOROBIPHENYL (BZ-164)	FL
EPA 1668 B	2,3,3',4',5,5'-HEXACHLOROBIPHENYL (BZ-162)	FL
EPA 1668 B	2,3,3',4'-TETRACHLOROBIPHENYL (BZ-56)	FL
EPA 1668 B	2,3,3',4,4',5,5',6-OCTACHLOROBIPHENYL (BZ-205)	FL
EPA 1668 B	2,3,3',4,4',5,6-HEPTACHLOROBIPHENYL (BZ-190)	FL
EPA 1668 B	2,3,3',4,4'-PENTACHLOROBIPHENYL (BZ-105)	FL
EPA 1668 B	2,3,3',4,5,5',6-HEPTACHLOROBIPHENYL (BZ-192)	FL
EPA 1668 B	2,3,3',4,5-PENTACHLOROBIPHENYL (BZ-106)	FL
EPA 1668 B	2,3,3',5'-TETRACHLOROBIPHENYL (BZ-58)	FL
EPA 1668 B	2,3,3',5,5'-PENTACHLOROBIPHENYL (BZ-111)	FL
EPA 1668 B	2,3,3',5-TETRACHLOROBIPHENYL (BZ-57)	FL
EPA 1668 B	2,3,4',6-TETRACHLOROBIPHENYL (BZ-64)	FL
EPA 1668 B	2,3,4,4',5-PENTACHLOROBIPHENYL (BZ-114)	FL
EPA 1668 B	2,3,5-TRICHLOROBIPHENYL (BZ-23)	FL
EPA 1668 B	2,3-DICHLOROBIPHENYL (BZ-5)	FL
EPA 1668 B	2,4',6-TRICHLOROBIPHENYL (BZ-32)	FL
EPA 1668 B	2,4-DICHLOROBIPHENYL (BZ-7)	FL
EPA 1668 B	2,6-DICHLOROBIPHENYL (BZ-10)	FL
EPA 1668 B	3,3',4,4',5,5'-HEXACHLOROBIPHENYL (BZ-169)	FL
EPA 1668 B	3,3',4,4'-TETRACHLOROBIPHENYL (BZ-77)	FL
EPA 1668 B	2,3',4,4',5'-PENTACHLOROBIPHENYL (BZ-123)	FL
EPA 1668 B	2,3',4,4',5-PENTACHLOROBIPHENYL (BZ-118)	FL
EPA 1668 B	2,3',4,5',6-PENTACHLOROBIPHENYL (BZ-121)	FL
EPA 1668 B	2,3',4,5,5'-PENTACHLOROBIPHENYL (BZ-120)	FL
EPA 1668 B	2,3',4-TRICHLOROBIPHENYL (BZ-25)	FL
EPA 1668 B	2,3',5,5'-TETRACHLOROBIPHENYL (BZ-72)	FL
EPA 1668 B	2,3'-DICHLOROBIPHENYL (BZ-6)	FL
EPA 1668 B	2,3,3',4',5'-PENTACHLOROBIPHENYL (BZ-122)	FL
EPA 1668 B	2,3,3',4',5-PENTACHLOROBIPHENYL (BZ-107)	FL
EPA 1668 B	2,3,3',4,4',5',6-HEPTACHLOROBIPHENYL (BZ-191)	FL
EPA 1668 B	2,3,3',4,4',5,5'-HEPTACHLOROBIPHENYL (BZ-189)	FL
EPA 1668 B	2,3,3',4,4',6-HEXACHLOROBIPHENYL (BZ-158)	FL
EPA 1668 B	2,3,3',4,5',6-HEXACHLOROBIPHENYL (BZ-161)	FL
EPA 1668 B	2,3,3',4,5,5'-HEXACHLOROBIPHENYL (BZ-159)	FL
EPA 1668 B	2,3,3',4-TETRACHLOROBIPHENYL (BZ-55)	FL
EPA 1668 B	2,3,3',5,5',6-HEXACHLOROBIPHENYL (BZ-165)	FL
EPA 1668 B	2,3,3',5,6-PENTACHLOROBIPHENYL (BZ-112)	FL
EPA 1668 B	2,3,4',5-TETRACHLOROBIPHENYL (BZ-63)	FL
EPA 1668 B	2,3,4'-TRICHLOROBIPHENYL (BZ-22)	FL
EPA 1668 B	2,3,4,4'-TETRACHLOROBIPHENYL (BZ-60)	FL
EPA 1668 B	2,3,6-TRICHLOROBIPHENYL (BZ-24)	FL
EPA 1668 B	2,4',5-TRICHLOROBIPHENYL (BZ-31)	FL
EPA 1668 B	2,4'-DICHLOROBIPHENYL (BZ-8)	FL
EPA 1668 B	2,5-DICHLOROBIPHENYL (BZ-9)	FL
EPA 1668 B	2-CHLOROBIPHENYL (BZ-1)	FL
EPA 1668 B	3,3',4,4',5-PENTACHLOROBIPHENYL (BZ-126)	FL
EPA 1668 B	3,3',4,5'-TETRACHLOROBIPHENYL (BZ-79)	FL

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 7618

Testamerica Laboratories Inc.- Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Virginia Laboratory ID: 460176
Effective Date: January 20, 2015
Expiration Date: September 14, 2015

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 1668 B	3,3',4,5,5'-PENTACHLOROBIPHENYL (BZ-127)	FL
EPA 1668 B	3,3',4-TRICHLOROBIPHENYL (BZ-35)	FL
EPA 1668 B	3,3',5-TRICHLOROBIPHENYL (BZ-36)	FL
EPA 1668 B	3,4',5-TRICHLOROBIPHENYL (BZ-39)	FL
EPA 1668 B	3,4,4'-TRICHLOROBIPHENYL (BZ-37)	FL
EPA 1668 B	3,5-DICHLOROBIPHENYL (BZ-14)	FL
EPA 1668 B	4,4'-DICHLOROBIPHENYL (BZ-15)	FL
EPA 1668 B	DECACHLOROBIPHENYL (BZ-209)	FL
EPA 1668 B	PCB-(110/115)	FL
EPA 1668 B	PCB-(117/116/85)	FL
EPA 1668 B	PCB-(13/12)	FL
EPA 1668 B	PCB-(138/163/129/160)	FL
EPA 1668 B	PCB-(147/149)	FL
EPA 1668 B	PCB-(156/157)	FL
EPA 1668 B	PCB-(180/193)	FL
EPA 1668 B	PCB-(198/199)	FL
EPA 1668 B	PCB-(26/29)	FL
EPA 1668 B	PCB-(30/18)	FL
EPA 1668 B	PCB-(44/47/65)	FL
EPA 1668 B	PCB-(50/53)	FL
EPA 1668 B	PCB-(61/70/74/76)	FL
EPA 1668 B	PCB-(83/99)	FL
EPA 1668 B - EXTENDED	PCB-(108/124)	FL
EPA 1668 B - EXTENDED	PCB-(43/73)	FL
EPA 1668 B - EXTENDED	PCB-(98/102)	FL
EPA 8290	1,2,3,4,6,7,8,9-OCTACHLORODIBENZOFURAN (OCDF)	FL
EPA 8290	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN (1,2,3,4,6,7,8-HPCDF)	FL
EPA 8290	1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN (1,2,3,4,7,8-HXCDD)	FL
EPA 8290	1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN(1,2,3,6,7,8-HXCDD)	FL
EPA 8290	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN (1,2,3,7,8,9-HXCDD)	FL
EPA 8290	1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN (1,2,3,7,8-PECDD)	FL
EPA 8290	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN (2,3,4,6,7,8-HXCDF)	FL
EPA 1668 B	3,3',4,5-TETRACHLOROBIPHENYL (BZ-78)	FL
EPA 1668 B	3,3',5,5'-TETRACHLOROBIPHENYL (BZ-80)	FL
EPA 1668 B	3,3'-DICHLOROBIPHENYL (BZ-11)	FL
EPA 1668 B	3,4,4',5-TETRACHLOROBIPHENYL (BZ-81)	FL
EPA 1668 B	3,4,5-TRICHLOROBIPHENYL (BZ-38)	FL
EPA 1668 B	3-CHLOROBIPHENYL (BZ-2)	FL
EPA 1668 B	4-CHLOROBIPHENYL (BZ-3)	FL
EPA 1668 B	PCB-(108/119/86/97/125/87)	FL
EPA 1668 B	PCB-(113/90/101)	FL
EPA 1668 B	PCB-(128/166)	FL
EPA 1668 B	PCB-(134/143)	FL
EPA 1668 B	PCB-(139/140)	FL
EPA 1668 B	PCB-(153/168)	FL
EPA 1668 B	PCB-(171/173)	FL
EPA 1668 B	PCB-(183/185)	FL
EPA 1668 B	PCB-(21/33)	FL
EPA 1668 B	PCB-(28/20)	FL
EPA 1668 B	PCB-(41/40/71)	FL
EPA 1668 B	PCB-(45/51)	FL
EPA 1668 B	PCB-(59/62/75)	FL
EPA 1668 B	PCB-(69/49)	FL
EPA 1668 B	PCB-(88/91)	FL
EPA 1668 B - EXTENDED	PCB-(135/151)	FL
EPA 1668 B - EXTENDED	PCB-(93/100)	FL
EPA 8290	1,2,3,4,6,7,8,9-OCTACHLORODIBENZO-P-DIOXIN (OCDD)	FL
EPA 8290	1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN (1,2,3,4,6,7,8-HPCDD)	FL
EPA 8290	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN (1,2,3,4,7,8,9-HPCDF)	FL
EPA 8290	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN (1,2,3,4,7,8-HXCDF)	FL
EPA 8290	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN (1,2,3,6,7,8-HXCDF)	FL
EPA 8290	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN (1,2,3,7,8,9-HXCDF)	FL
EPA 8290	1,2,3,7,8-PENTACHLORODIBENZOFURAN (1,2,3,7,8-PECDF)	FL
EPA 8290	2,3,4,7,8-PENTACHLORODIBENZOFURAN	FL

Commonwealth of Virginia

Department of General Services
Division of Consolidated Laboratory Services

Scope of Accreditation

VELAP Certificate No.: 7618

Testamerica Laboratories Inc.- Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921

Virginia Laboratory ID: 460176
Effective Date: January 20, 2015
Expiration Date: September 14, 2015

SOLID AND CHEMICAL MATERIALS

METHOD	ANALYTE	PRIMARY
EPA 8290	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (2,3,7,8-TCDD)	FL
EPA 8290 A	1,2,3,4,6,7,8,9-OCTACHLORODIBENZO-P-DIOXIN (OCDD)	FL
EPA 8290 A	1,2,3,4,6,7,8-HEPTACHLORODIBENZO-P-DIOXIN (1,2,3,4,6,7,8-HPCDD)	FL
EPA 8290 A	1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN (1,2,3,4,7,8,9-HPCDF)	FL
EPA 8290 A	1,2,3,4,7,8-HEXACHLORODIBENZOFURAN (1,2,3,4,7,8-HXCDF)	FL
EPA 8290 A	1,2,3,6,7,8-HEXACHLORODIBENZOFURAN (1,2,3,6,7,8-HXCDF)	FL
EPA 8290 A	1,2,3,7,8,9-HEXACHLORODIBENZOFURAN (1,2,3,7,8,9-HXCDF)	FL
EPA 8290 A	1,2,3,7,8-PENTACHLORODIBENZOFURAN (1,2,3,7,8-PECDF)	FL
EPA 8290 A	2,3,4,7,8-PENTACHLORODIBENZOFURAN	FL
EPA 8290 A	2,3,7,8-TETRACHLORODIBENZOFURAN (2,3,7,8-TCDF)	FL
EPA 8290 A - EXTENDED	TOTAL HEPTACHLORODIBENZOFURAN (HPCDF, TOTAL)	FL
EPA 8290 A - EXTENDED	TOTAL HEXACHLORODIBENZOFURAN (HXCDF, TOTAL)	FL
EPA 8290 A - EXTENDED	TOTAL PENTACHLORODIBENZOFURAN (PECDF, TOTAL)	FL
EPA 8290 A - EXTENDED	TOTAL TETRACHLORODIBENZOFURAN (TCDF, TOTAL)	FL

METHOD	ANALYTE	PRIMARY
EPA 8290	2,3,7,8-TETRACHLORODIBENZOFURAN (2,3,7,8-TCDF)	FL
EPA 8290 A	1,2,3,4,6,7,8,9-OCTACHLORODIBENZOFURAN (OCDF)	FL
EPA 8290 A	1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN (1,2,3,4,6,7,8-HPCDF)	FL
EPA 8290 A	1,2,3,4,7,8-HEXACHLORODIBENZO-P-DIOXIN (1,2,3,4,7,8-HXCDD)	FL
EPA 8290 A	1,2,3,6,7,8-HEXACHLORODIBENZO-P-DIOXIN(1,2,3,6,7,8-HXCDD)	FL
EPA 8290 A	1,2,3,7,8,9-HEXACHLORODIBENZO-P-DIOXIN (1,2,3,7,8,9-HXCDD)	FL
EPA 8290 A	1,2,3,7,8-PENTACHLORODIBENZO-P-DIOXIN (1,2,3,7,8-PECDD)	FL
EPA 8290 A	2,3,4,6,7,8-HEXACHLORODIBENZOFURAN (2,3,4,6,7,8-HXCDF)	FL
EPA 8290 A	2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN (2,3,7,8-TCDD)	FL
EPA 8290 A - EXTENDED	TOTAL HEPTACHLORODIBENZO-P-DIOXIN (HPCDD, TOTAL)	FL
EPA 8290 A - EXTENDED	TOTAL HEXACHLORODIBENZO-P-DIOXIN (HXCDD, TOTAL)	FL
EPA 8290 A - EXTENDED	TOTAL PENTACHLORODIBENZO-P-DIOXIN (PECDD, TOTAL)	FL
EPA 8290 A - EXTENDED	TOTAL TETRACHLORODIBENZO-P-DIOXIN (TCDD, TOTAL)	FL

APPENDIX G

CORRESPONDENCE

Recd: KRM 1/26/14

COMMONWEALTH of VIRGINIA

Department of General Services

Division of Consolidated Laboratory Services

600 North 5th Street
Richmond, Virginia 23219-3691
(804) 648-4480
FAX (804) 692-0416

01/21/2015

Robyn Wagner
Testamerica Laboratories Inc.- Knoxville
5815 Middlebrook Pike
Knoxville TN 37921

VELAP ID: 460176

Dear Robyn Wagner:

The Virginia Environmental Laboratory Accreditation Program has completed processing the requested revision to your certificate. Enclosed with this letter is certificate # 7618. Certificate # 7618 and the associated Scope of Accreditation must be posted in a prominent place at the laboratory.

Please contact your lead assessor, Christina Lynchesky, at christina.lynchesky@dgs.virginia.gov or (804)648-4480 x304 if you have any questions.

Sincerely yours,

Cathy Westerman
Manager, Laboratory Certification Program

Enclosures
cc: Chris Rigell

ORDNANCE SYSTEMS INC.
Radford Army Ammunition Plant
4050 Pepper's Ferry Road
Radford Virginia 24141

September 16, 2015

Mr. Russell McAvoy, P.E.
Hazardous Waste Permitting
Virginia Department of Environmental Quality
629 East Main Street
Richmond, Virginia 23219

Subject: **August 13, 2015 - Annual Soil Monitoring Event**
Soil Monitoring Program - Open Burning Ground (OBG)
Radford Army Ammunition Plant, Radford, Virginia
EPA ID#: VA1210020730

Dear Mr. McAvoy:

During August 2015, Radford Army Ammunition Plant (RFAAP), located in Radford, Virginia, completed the annual soil sampling event at the Open Burning Ground (OBG). Laboratory results indicated the following constituent was detected at a concentration greater than the Permit-specified Action Level (AL).

Location/Analyte	Result mg/kg (1,2)	RL mg/kg (3)	Action Limit mg/kg	Action Limit Basis
Lead				
PAD-6	900	0.3	800	USEPA Region 3 - RSL Industrial Table- Nov 2013

Notes:

(1) Event Date: August 13, 2015
(2) Result reported on a dry weight basis
(3) RL denotes Reporting Limit, reported on a dry weight basis. Also may be referenced as Quantitation Limit (QL) or Limit of Quantitation (LOQ).

A verification event to confirm or refute the initial results noted above is scheduled for on or before October 2, 2015.

Additionally, VDEQ requested notification if 3,3-dimethylbenzidine is detected less than the Reporting Limit (RL), since the RL for this analyte, 1 mg/kg, and detection limit (DL), 0.5 mg/kg are greater than the AL of 0.16 mg/kg. For sample location PAD-6, the RL and DL for 3,3-dimethylbenzidine was adjusted due to sample dilution required to accurately quantitate a result for another target analyte. For this event, 3,3-dimethylbenzidine was not detected at or above the RL, DL, or the adjusted RL or the adjusted DL in any sample. Soil samples will continue to be analyzed for 3,3-dimethylbenzidine during future events. The adjusted RL and DL for 3,3-dimethylbenzidine at PAD-6 is provided below.

Location	Result	Adjusted RL (mg/kg)	Adjusted Detection Limit (mg/kg)	Action Level (mg/kg)	Action level Basis
3,3-Dimethylbenzidine					
PAD-6	ND	5.5	2.8	0.16	Region III RSL Industrial (RSL Table dated Nov 2013)

Note: ND Denotes not detected. Sample analyzed at a 1:5 dilution.

15-0900-143

If you have any questions or concerns, please contact me at 540/639-7785 or (jay.stewart@baesystems.com).

Sincerely,

Matt Alberts for

Jay Stewart
Environmental Manager
BAE Systems, Ordnance Systems Inc.

cc: w/o enclosures
Aziz Farahmand, VDEQ-BRRO

Coordination: J. McKenna
J. McKenna

bc: Administrative File
J. Stewart
J. McKenna, Army Staff
Matt Alberts
Mike Lawless, Draper Aden Associates
Env. File

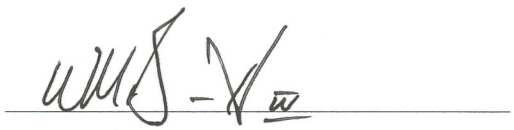
Concerning the following:

Open Burning Ground (OBG) – Soil Monitoring Program
Radford Army Ammunition Plant, Radford, Virginia
EPA ID#: VA1210020730
For the August 13, 2015 Soil Monitoring Event

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

SIGNATURE: 

PRINTED NAME: Alicia M. Masson
TITLE: Lieutenant Colonel, US Army
Commanding

SIGNATURE: 

PRINTED NAME: William M. Barnett
TITLE: General Manager
BAE Systems

BAE SYSTEMS

ORDNANCE SYSTEMS INC.
Radford Army Ammunition Plant
4050 Pepper's Ferry Road
Radford Virginia 24141

October 5, 2015

Mr. Russell McAvoy, P.E.
Hazardous Waste Permitting
Virginia Department of Environmental Quality
629 East Main Street
Richmond, Virginia 23219

Subject: **September 25, 2015 – Verification Event Notification**
August 13, 2015 - Soil Monitoring Program - Open Burning Ground (OBG)
Radford Army Ammunition Plant, Radford, Virginia
EPA ID#: VA1210020730

Dear Mr. McAvoy:

During August 2015, Radford Army Ammunition Plant (RFAAP), located in Radford, Virginia, completed the annual soil sampling event at the Open Burning Ground (OBG). Initial laboratory results indicated lead at PAD-6 was detected at a concentration greater than the permit specified AL. As summarized below, the verification event results were less than the AL, and no additional action is required.

Location/ Analyte	Initial Event Result (August 13, 2015) mg/kg (1)	Verification Event Result (September 25, 2015) mg/kg (1)	Action Limit mg/kg	Action Limit Basis
Lead				
PAD-6	900	620	800	USEPA Region 3 - RSL Industrial Table- Nov 2013
DUP		510		

Notes:

(1) Result reported on a dry weight basis
(2) DUP – blind field duplicate result – PAD-6 – Sept 25, 2015 event only

The details (laboratory report, QA/QC, field notes, etc.) of the soil monitoring event will be included in the 2015 Annual soil monitoring program report.

If you have any questions or concerns, please contact me at 540/639-7785 or (jay.stewart@baesystems.com).

Sincerely,

Jay Stewart
Environmental Manager
BAE Systems, Ordnance Systems Inc.

15-0900-153

cc: w/o enclosures
Aziz Farahmand, VDEQ-BRRO

Coordination: J. McKenna

J. McKenna

bc: Administrative File
J. Stewart
J. McKenna, Army Staff
Matt Alberts
Mike Lawless, Draper Aden Associates
Env. File

Concerning the following:

Open Burning Ground (OBG) – Soil Monitoring Program- 2015 Verification Event Sampling
Radford Army Ammunition Plant, Radford, Virginia
EPA ID#: VA1210020730
For the August 13, 2015 Soil Monitoring Event

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

SIGNATURE: 

PRINTED NAME: Alicia M. Masson
TITLE: Lieutenant Colonel, US Army
Commanding

SIGNATURE: 

PRINTED NAME: William M. Barnett
TITLE: General Manager
BAE Systems

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
Street address: 629 East Main Street, Richmond, Virginia 23219
Mailing address: P.O. Box 1105, Richmond, Virginia 23218
Fax: 804-698-4019 - TDD (804) 698-4021
www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4020
1-800-592-5482

Office of Waste Permitting and Compliance

Land Protection and Remediation Division

June 12, 2014

VIA ELECTRONIC MAIL
Mr. Jay Stewart
Environmental Manager
BAE Systems, Ordnance Systems, Inc.
Radford Army Ammunition Plant
4050 Pepper's Ferry Road
Radford, Virginia 24141

Re: Radford Army Ammunition Plant, Radford, VA
EPA ID No.VA1210020730, Approval of Class 1 Permit Modifications
Hazardous Waste Management Open Burning Ground (OBG) Operating Permit

Dear Mr. Stewart:

Enclosed are the final Class 1 Modifications to the Open Burning Grounds (OBG) Permit for hazardous waste treatment at the Radford Army Ammunition Plant (RAAP), Radford, Virginia, facility. The final Class 1 Modifications to the Permit have been approved.

The Virginia Department of Environmental Quality (DEQ) received the Class 1 Permit modification request addressing the hazardous waste Open Burning Ground (OBG) that was communicated to the DEQ in a letter dated April 15, 2014, from the RAAP, Radford, Virginia, facility.

In the letter dated April 15, 2014, RAAP requested the following changes to the facility's hazardous waste Open Burning Ground Permit:

- (1) Update of the Action Levels listed in Attachment II.C., Soil Monitoring Plan of the

OB Permit to the new Action Levels established in the November 2013 US Environmental Protection Agency Regional Screening Table developed by Oak Ridge Laboratory, as applicable and update of the analytical methods applicable to perchlorate and nitroglycerin, and;

- (2) Update of groundwater analytical methods listed in Attachment VII.C- Corrective Action Program - Annual Groundwater Monitoring List for Radford OBG#13 and Attachment **VII.B -** Semi-Annually Monitored Natural Attenuation Parameters and Analytical Methods. In particular, the only commercial laboratory conducting nitroglycerin analysis by SW-846 Method 8332 (Attachment VII.C) has indicated that they will no longer support the analysis. SW-846 Method 8330 (as updated) is the proposed method for nitroglycerin analysis in groundwater. Action Levels and historical laboratory quantitation and method detection limits will continue to be achieved by Method 8330.

The first set of changes represents a Class 1 modification under 40 CFR § 270.42 Appendix I.B.1.a – *General Facility Standards – Changes to waste sampling or analysis methods to conform to agency guidance or regulations*. In addition, Section 3.3 of the Soil Monitoring Plan – Attachment II.C states, "... RFAAP will re-evaluate the OBG Soil Monitoring Program every three years and at that time may request to modify the monitoring and sampling locations and/or constituent list in accordance with 40 CFR 270.42." The Department last approved these types of permit changes in September, 2011.

The second set of changes represents a Class 1 modification under 40 CFR § 270.42 Appendix I.C.2 – *Changes in groundwater sampling or analysis procedures or monitoring schedule, with prior approval of the Director.*

Based on the above justification, this April 15, 2014, letter requesting changes in the soil monitoring plan and certain groundwater analytical methods; the RAAP has established sufficient documentation for approval of all requested changes. In accordance with the VHWMR, under 40 CFR § 270.42, Appendix I, Sections B.1.a, and C.2 and based upon the accuracy of the information contained in the Permittee's correspondence dated April 15, 2014, the requested Class 1 modifications to the permit are approved.

Enclosed are the final modified pages in electronic format to be inserted into the RAAP's copy of the hazardous waste permit.

All conditions and requirements of the facility Permit shall remain in effect for the duration of the Permit unless the existing Permit is modified, revoked and reissued, or terminated in accordance with 40 CFR § 124.5, and 40 CFR § 270.41 through 270.42, or continued in accordance with 9 VAC 20-60-270.B.5.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date of service of this decision to initiate a legal appeal by filing a notice of appeal with:

David K. Paylor, Director
Department of Environmental Quality
629 East Main Street
P.O. Box 1105
Richmond, VA 23218

In the event that this decision is served to you by mail, the date of service will be calculated as three days after the postmark date. Please refer to Part 2A of the Rules of the Supreme Court of Virginia, which describes the required content of the Notice of Appeal, including specifications of the Circuit Court to which the appeal is taken, and additional requirements concerning appeals from decisions of administrative agencies.

This above Class 1 permit modification under 40 CFR § 270.42(a)(1) requires the Permittee to send a notice of the modification to all persons on the facility mailing list (attached) within 90 days after the change is put into effect. In addition, RAAP must provide documentation to this Office regarding compliance with the public notice requirement. Please submit evidence of this mailing (return receipts, copy of the notification letter) when it is available.

If you should have any questions regarding these matters, please contact Russell McAvoy, Jr., PE, Environmental Engineer Senior, at (804) 698-4194 or by e-mail at russell.mcavoy@deq.virginia.gov.

Sincerely,

Leslie A. Romanchik

Leslie A. Romanchik
Hazardous Waste Program Manager
Office of Waste Permitting and Compliance

Enclosures: Facility Mailing List, Modified Permit Pages

cc: Andrea Barbieri – EPA, Region III (3LC50) e/enclosures
Jutta Schneider – DEQ, CO
Kurt Kochan – DEQ, CO
Aziz Farahmand – DEQ, BRRO
Elizabeth Lohman – DEQ, BRRO
Julia King–Collins – DEQ, CO
Central Hazardous Waste Files

ORDNANCE SYSTEMS INC.
Radford Army Ammunition Plant
4050 Pepper's Ferry Road
Radford Virginia 24141

July 29, 2015

Mr. Russell McAvoy, P.E.
Hazardous Waste Permitting
Virginia Department of Environmental Quality
629 East Main Street
Richmond, Virginia 23219

Subject: **Soil Removal Report**
Soil Monitoring Program - Open Burning Ground (OBG)
Radford Army Ammunition Plant, Radford (RFAAP), Virginia
EPA ID#: VA1210020730

Dear Mr. McAvoy:

This report summarizes final soil removal and confirmation sampling activities at the Open Burning Ground (OBG) due to the detection of nitroglycerin in soil above the permit Action Level (AL) in the near vicinity of sample location PAD-3. These activities conclude permit required interim measures initiated as a result of the hot spot nitroglycerin detection during the permit required OBG Annual Soil Monitoring event conducted in July 2014. Based on the results of the final soil removal and confirmation sampling activities discussed below, and in accordance with the permit, no further action is required.

Background:

Based on the results of the July 31, 2014 annual soil monitoring event and additional verification monitoring collected on October 22, 2014 and as required by the permit, RFAAP submitted a proposed interim measure corrective action work plan as required by Sections 7.0 and 8.0 of Permit Attachment II.C on November 24, 2014. As required by Permit Attachment II.C and as detailed in the November 24, 2014 interim measures corrective action work plan additional samples were collected on December 8, 2014 within a five-foot radius of the sample collection point (PAD-3). Four randomly selected sample points were selected within the diameter of the grid. Each sample point was sampled to a terminal depth of 24-inches below ground surface with discrete samples collected every six-inches. The results of this hot spot sampling event were submitted to the Virginia Department of Environmental Quality (VDEQ) on January 19, 2015. As required by Permit Attachment II.C, Section 8.1, on March 9, 2015, RFAAP submitted a proposed soil removal work plan to address the concentrations of nitroglycerin confirmed in the near vicinity of sample location PAD-3. VDEQ approved the work plan on April 23, 2015. Correspondence associated with the soil monitoring activities, including the approved work plan, is provided in Attachment IV.

Soil Removal Efforts

On June 23, 2015, RFAAP conducted soil removal and confirmation sampling activities at the OBG as specified in the Soil Removal Work Plan and in support of the hot-spot evaluation for nitroglycerin detected in soil above the permit AL at sample location PAD-3. Review of analytical data as part of this assessment of soil removal activities suggests that soil media impacted with nitroglycerin concentrations greater than the permit AL at sample location PAD-3 have successfully been removed from the site. Nitroglycerin concentrations from soils collected from the soil removal excavation pit were below the permit AL of 62 mg/kg. Nitroglycerin results for the confirmation soil excavation sampling were received from Microbac Laboratories, Ohio Valley Division (Microbac), of Marietta, Ohio, on July 6, 2015. As required by Soil Removal Work Plan, RFAAP submits, within 30 days, the sampling results following soil removal to address the impacted soil in the vicinity of PAD-3.

Based on the results of the December 8, 2014 hot spot sampling at PAD-3, it was determined that soil media impacted with nitroglycerin was present within the top six inches of soil and within a five-foot radius of the sample collection

point "PAD-3". The original sample location point, PAD-3, is located at the low point in topography perpendicular to the center of the pans on PAD-3 (Figure 3).

As set forth in the March 9, 2015 Soil Removal Work Plan, soil was excavated with a mechanical backhoe under the supervision of an authorized representative of RFAAP on June 23, 2015. Approximately the top 10-inches of soil in the five-foot radius circle around the original sample location at PAD-3 was removed from the site. The shape of the soil removal area was irregular due to the use of a mechanical backhoe, but at minimum covers the area of the 5- foot radius circle around sample location PAD-3. At the direction of RFAAP, the removed soil was placed in a DOT approved covered roll-off container and staged pending waste characterization. The container was labeled as hazardous waste and dated as a 90-day accumulation area, pending analytical results. The results of the waste characterization and final disposal is discussed below.

In order to determine if the impacted media was successfully removed from the site, Draper Aden Associates, of Blacksburg, Virginia, collected six grab soil samples from the base and sidewalls of the excavation pit. Four of the six grab soil samples were randomly collected from approximately the top half-inch of soil on the base of the excavation pit and two of the six grab soil samples were randomly collected from the sidewall at approximately a five-inch depth and half-inch depth into the sidewall of the pit. Aliquots from the six grab sample locations were composited together to form one composite sample (Sample ID: PAD-3 EXC). A duplicate sample (PAD-3 D EXC) was also taken from the same composited aliquot for quality control. As suggested by the analytical method (SW-846 Method 8330B) and for quality control, a replicate sample (PAD-3 R EXC) was collected by resampling the six grab sampling locations in the reverse order and compositing the aliquots from the six locations.

Each soil sample was collected with a new, decontaminated stainless steel trowel and composited in a plastic zip-lock bag. Following collection of the confirmatory soil samples and as directed by RFAAP, the excavated area was filled to the original grade using clean borrow sources available within RFAAP.

Draper Aden Associates stored the soil samples on ice and shipped the cooler overnight to Microbac under chain of custody for nitroglycerin analysis (SW-846 Method 8330B). The samples were received by Microbac within the required temperature range and were analyzed within the required holding time. Microbac is accredited under the Virginia Environmental Laboratory Accreditation Program (VELAP) for the method, matrix, and analyte specified. Nitroglycerin analytical results collected as part of this assessment are summarized below. Data validation was performed on the sample results. Field notes, data validation report and laboratory analytical results are provided in Attachment 1.

Summary of Soil Analytical Results for Nitroglycerin – Confirmation Soil Removal Event – June 23, 2015

Location/Analyte	Soil Removal Event Result (June 23, 2015) mg/kg [1]	Action Limit mg/kg	Action Limit Basis
Nitroglycerin			
PAD-3 EXC	3.99 J[2]	62	USEPA Region 3 - RSL Industrial Table- Nov 2013
PAD-3 D EXC	9.85 J		
PAD-3 R EXC	6.63 J		
Notes: (1) Result reported on a dry weight basis (2) J denotes that result is estimated. See Data Validation Report (Attachment I) for details.			

Excavated Impacted Soil- Waste Characterization and Disposal

Mr. Matt Alberts, BAE, collected a single composite sample of the excavated soil for waste characterization. The composite sample was collected by combining five aliquots of soil from different portions of the excavated soil. Mr. Alberts submitted the composite soil sample to REIC Laboratories of Beaver, West Virginia for waste characterization (I.e., RCRA TCLP and 2,4-Dinitrotoluene analysis). Based on the results of the waste characterization analysis, the soil removed from PAD-3 was classified as non-hazardous waste; these analytical results are included in Attachment III. On

July 15, 2015, 9,900 pounds and approximately 30 cubic yards of excavated soil was shipped to Piedmont First Landfill in Ringgold, Virginia. The shipping manifest is included as Attachment II.

Investigation Derived Waste (IDW)

Remaining aliquots of soil following composition and sampling were disposed of with the excavated soil. All other investigation derived waste (IDW) was collected and disposed of in accordance with the permit.

Conclusions

As summarized above, review of analytical data as part of the assessment of soil removal activities suggests that soil media impacted with nitroglycerin concentrations greater than the permit AL at sample location PAD-3 have successfully been removed from the site. Nitroglycerin concentrations from soils collected from the soil removal pit were below the permit AL of 62 mg/kg. No further action is anticipated.

If you have any questions or concerns, please contact Mr. Matt Alberts at 540/639-8722 (matt.alberts@baesystems.com).

Sincerely,

Jay Stewart
Environmental Manager
BAE Systems, Ordnance Systems Inc.

Attachments:
Figures 1-3
Attachment I- Field Notes, Laboratory Data, Data Validation Report
Attachment II- Shipping Manifest
Attachment III- Waste Characterization Data
Attachment IV- Correspondence

NOTE: Figures and Attachments can be accessed using the link below
Figures and Attachments - OBG Soil Removal Rpt.pdf
https://files.daa.com/dl/5f62aIuVLA/Figures%20and%20Attachments%20-%20OBG%20Soil%20Removal%20Rpt.pdf_

cc: w/o enclosures
Aziz Farahmand, VDEQ-BRRO

Coordination: J. McKenna
J. McKenna

cc: w/enclosures
BAE Administrative File
J. McKenna/RFAAP Army Staff
Matt Alberts, BAE
Mike Lawless, Draper Aden Associates

Concerning the following:

Open Burning Ground (OBG) – Soil Monitoring Program
Radford Army Ammunition Plant, Radford, Virginia
EPA ID#: VA1210020730
Soil Removal Report

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

SIGNATURE: _____

PRINTED NAME: Alicia M. Masson
TITLE: Lieutenant Colonel, US Army
Commanding

SIGNATURE: _____

PRINTED NAME: William M. Barnett
TITLE: General Manager
BAE Systems

ORDNANCE SYSTEMS INC.
Radford Army Ammunition Plant
4050 Pepper's Ferry Road
Radford Virginia 24141

July 16, 2015

Mr. Ashby Scott
Program Manager
Office of Remediation Programs
Virginia Department of Environmental Quality
629 East Main Street
Richmond, Virginia 23219

Subject: **Open Burning Ground Soils Human Health Risk Assessment**
Radford Army Ammunition Plant, Radford, Virginia
EPA ID#: VA1210020730

Dear Mr. Scott:

In an e-mail correspondence dated June 26, 2015, RFAAP sent to VDEQ details pertaining to the human health risk assessment on soil data for the RAAP Open Burning Ground (OBG). The correspondence requested VDEQ's approval of sample locations/constituents/UCLs planned to be used in the risk assessment. The request for approval was based on a letter from VDEQ dated April 29, 2015 that outlined the proposed risk assessment methodology requirements for conducting and submitting the risk assessment. Item 6 of the 13 requirements stated: "Approve sample locations/constituents/UCLs in advance with DEQ oversight."

The June 26, 2015 correspondence requested VDEQ's approval of the sample locations/constituents/UCLs by July 3, 2015. The correspondence indicated that without VDEQ's approval by July 3, 2015, and due to the time-sensitive nature of the ongoing risk assessment, it would be prohibitive to be able to complete the risk assessment by VDEQ's July 28, 2015 deadline. As we have yet to receive VDEQ's final approval to the sample locations/constituents/UCLs, we request a 60 day extension to the July 28, 2015 deadline which would make the new deadline September 26, 2015.

On July 10, 2015 we submitted to your office an uncertified 90 day extension request to the July 28, 2015 deadline, which was followed by a telephone conference call with your office on the same day. We are in the process of submitting an email response to your queries from the July 10, 2015 conference call. In the interim, this 60 day extension request replaces the uncertified 90 day extension request submitted to you on July 10, 2015.

If you have any questions or concerns, please contact Mr. Matt Alberts at 540/639-8722 (matt.alberts@baesystems.com).

Sincerely,

Jay Stewart
Environmental Manager
BAE Systems, Ordnance Systems Inc.

Coordination: _____
J. McKenna

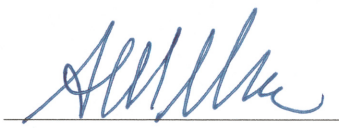
15-0900-109

cc: w/enclosures
Aziz Farahmand, VDEQ-BRRO
BAE Administrative File
J. McKenna/RFAAP Army Staff
Matt Alberts, BAE
Mike Lawless, Draper Aden Associates
Andrea Barbieri, EPA Region III (3LC50)
Leslie A. Romanchik, VDEQ-CO
Sonal Iyer, VDEQ-CO
Pat McMurray, VDEQ-CO
Hasan Keceli, VDEQ-CO
Julia King-Collins, VDEQ-CO
Justin Williams, VDEQ-CO

Concerning the following:

Radford Army Ammunition Plant
Open Burning Ground (OBG) – Soil Monitoring Program
Radford Army Ammunition Plant, Radford, Virginia
Soils Risk Assessment Extension Request

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

SIGNATURE: 

PRINTED NAME: Alicia M. Masson
TITLE: Lieutenant Colonel, US Army
Commanding

SIGNATURE: 

PRINTED NAME: William M. Barnett
TITLE: General Manager
BAE Systems

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
Street address: 629 East Main Street, Richmond, Virginia 23219
Mailing address: P.O. Box 1105, Richmond, Virginia 23218
www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4000
1-800-592-5482

August 21, 2015

VIA ELECTRONIC MAIL
Mr. Jay Stewart
Environmental Manager
Radford Army Ammunition Plant
4050 Pepper's Ferry Road
Radford, Virginia 24141

Re: Radford Army Ammunition Plant, Radford, VA
EPA ID No.VA1210020730, Open Burning Ground Risk Assessment for 2014 Soil Monitoring Event Date – Approval of Sample Locations, Constituents of Potential Concern and Upper Confidence Limits and 60 Day Extension Request Approval

Dear Mr. Stewart,

The Virginia Department of Environmental Quality (DEQ) is in receipt of the Radford Army Ammunition Plant's (RAAP) electronic submission dated June 26, 2015, from the Radford, Virginia, facility in response to the DEQ's April 29, 2015 letter providing guidance on the Open Burning Ground (OGB) risk assessment.

The electronic submission requested the DEQ's concurrence of the RAAP's proposed soil sample locations, Constituents of Potential Concern (COPC) and Upper Confidence Limits (UCLs) planned to be used in the risk assessment. The DEQ has reviewed the submitted tables and figures and concurs that the proposed sample locations and UCLs are acceptable for use in the risk assessment and are approved by the DEQ.

However given the concerns raised by DEQ with the exclusion of 3,3-dimethylbenzidine from the COPC list during calls on July 10, 2015 and July 30, 2015 and from the DEQ's review of the subsequent letters explaining the reasoning for the exclusion, submitted on August 10, 2015 and August 13, 2015, the DEQ is requiring that 3,3-dimethylbenzidine be included in the COPC list to be evaluated at the standard of ½ of the modified detection limit, which was due to sample dilution. The DEQ does concur with the other COPC's proposed by RAAP for inclusion of the risk assessment.

Additionally when the OBG risk assessment has been completed please also submit the input soil sample data used to calculate the UCLs, via an excel spreadsheet, for verification by the DEQ's statistician, Mr. Hasan Keceli, of the submitted UCLs.

A separate electronic submission, dated July 16, 2015, was received which requested a 60 day extension to the July 28, 2015 deadline for submission of the risk assessment. In light of the time it took for DEQ to review the additional information requested a 90 day extension has been approved and the new submission date for the risk assessment is now October 26, 2015.

If you have any questions or comments concerning this matter, please contact me at (804) 698-4467 or by e-mail at Ashby.Scott@deq.virginia.gov, for risk assessment related questions, please feel free to contact Ms. Sonal Iyer at (804) 698-4259 or by e-mail at Sonal.Iyer@deq.virginia.gov and for any questions regarding statistical analysis or the UCLs please contact Mr. Hasan Keceli at (804) 698-4246 or by email at Hasan.Keceli@deq.virginia.gov.

Sincerely,

Ashby R. Scott
Hazardous Waste Permit Writer
Office of Waste Permitting and Compliance

cc: Andrea Barbieri, EPA, Region III (3LC50)
Aziz Farahmand, DEQ, Blue Ridge Regional Office
Leslie A. Romanchik, DEQ, CO
Sonal Iyer, DEQ, CO
Hasan Keceli, DEQ, CO
Julia King–Collins, DEQ, CO
Central Hazardous Waste Files

BAE SYSTEMS

ORDNANCE SYSTEMS INC.
Radford Army Ammunition Plant
4050 Pepper's Ferry Road
Radford Virginia 24141

October 14, 2015

Mr. Russell McAvoy, P.E.
Hazardous Waste Permitting
Virginia Department of Environmental Quality
629 East Main Street
Richmond, Virginia 23219

Subject: Open Burning Ground (OBG) Soil Quantitative Human Health Risk Assessment
Radford Army Ammunition Plant, Radford, Virginia
EPA ID#: VA1210020730

Dear Mr. McAvoy:

As requested by VDEQ in final project correspondence dated April 29, 2015, BAE Systems, Ordnance Systems Inc (BAE), completed a Quantitative Human Health Risk Assessment for the Open Burning Ground (OBG) soils, Radford Army Ammunition Plant (RFAAP), located in Radford, Virginia. The associated report is attached. The risk assessment report concludes that risks associated with OBG soils are below the regulatory thresholds; therefore, no further action is required.

If you have any questions or concerns, please contact me at 540/639-7785 or (jay.stewart@baesystems.com).

Sincerely,

Jay Stewart
Environmental Manager
BAE Systems, Ordnance Systems Inc.

cc: w/o enclosures
Aziz Farahmand, VDEQ-BRRO

Coordination: J. McKenna

bc: Administrative File
J. Stewart
J. McKenna, Army Staff
Matt Alberts
Mike Lawless, Draper Aden Associates
Env. File

15-0900-155

Concerning the following:

Baseline Human Health Risk Assessment
Open Burning Ground (OBG) Soil
Radford Army Ammunition Plant, Radford, Virginia
EPA ID#: VA1210020730
For the October 13, 2015 Risk Assessment Report

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

SIGNATURE: _____

PRINTED NAME: Alicia M. Masson
TITLE: Lieutenant Colonel, US Army
Commanding

SIGNATURE: J. Pethtel by: for

PRINTED NAME: William M. Barnett
TITLE: General Manager
BAE Systems

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Street address: 629 East Main Street, Richmond, Virginia 23219
Mailing address: P.O. Box 1105, Richmond, Virginia 23218
www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4000
1-800-592-5482

November 2, 2015

VIA ELECTRONIC MAIL
Mr. Jay Stewart
Environmental Manager
Radford Army Ammunition Plant
4050 Pepper's Ferry Road
Radford, Virginia 24141

Re: Radford Army Ammunition Plant, Radford, VA
EPA ID No.VA1210020730, Open Burning Ground Risk Assessment for 2014 Soil Monitoring Event Date – Acknowledgement of Receipt

Dear Mr. Stewart,

The Virginia Department of Environmental Quality (DEQ) is in receipt of the Radford Army Ammunition Plant's (RAAP) electronic submission of the Open Burning Ground Soil Quantitative Human Health Risk Assessment (OGB Soil Event HHRA), dated October 14, 2015, and received on October 22, 2015. The OBG Soil HHRA was submitted in response to the *Open Burning Ground Risk Assessment - Timing and Methodologies in Conjunction with the Annual Soil Monitoring Event – Guidance* letter dated April 29, 2015 and the subsequent 60 day extension which was granted on August 21, 2015. Review of this information will commence and you will receive DEQ's comments within 30 days (December 2, 2015).

If you have any questions concerning the information provided in this letter, please contact me at (804) 698-4467 or by email at Ashby.Scott@deq.virginia.gov.

Sincerely,

Ashby R. Scott
Hazardous Waste Permit Writer
Office of Waste Permitting and Compliance

cc: Andrea Barbieri, EPA, Region III (3LC50)
Aziz Farahmand, DEQ, Blue Ridge Regional Office
Leslie A. Romanchik, DEQ, CO
Sonal Iyer, DEQ, CO
Hasan Keceli, DEQ, CO
Russell McAvoy
Julia King–Collins, DEQ, CO
Central Hazardous Waste Files

From:	Scott, Ashby (DEQ)
To:	Stewart, Jay (US)
Cc:	Farahmand, Aziz (DEQ); Wright, Rebecca (DEQ); Romanchik, Leslie (DEQ); Iyer, Sonal (DEQ); Mike Lawless; Janet Frazier; Srikanth Nathella; McKenna, Jim; Alberts, Matt (US); McAvoy, Russell (DEQ)
Subject:	RE: 15-0900-155 RFAAP OBG Soil Quantitative Human Health Risk Assessment
Date:	Wednesday, December 02, 2015 8:56:55 AM

Jay,

Due to staff resource limitations we will be unable to provide comment on the 2013 Soil Monitoring Event Risk Assessment by the due date established in the acknowledgement of receipt letter, dated November 2, 2015. The revised due date will now be January 29, 2016. Please let me know if you have any questions.

Thanks,
Ashby

Ashby R. Scott
Hazardous Waste Permit Writer
Department of Environmental Quality
629 East Main Street
Richmond, VA 23218
Phone: 804-698-4467
Fax: 804-698-4234
Ashby.Scott@deq.virginia.gov
www.deq.virginia.gov

From: Alberts, Matt (US) [mailto:matt.alberts@baesystems.com]
Sent: Thursday, October 22, 2015 4:00 PM
To: McAvoy, Russell (DEQ); Scott, Ashby (DEQ)
Cc: Farahmand, Aziz (DEQ); Wright, Rebecca (DEQ); Romanchik, Leslie (DEQ); Iyer, Sonal (DEQ); Mike Lawless (mlawless@daa.com); Janet Frazier (jfrazier@daa.com); Srikanth Nathella (snathella@daa.com); Stewart, Jay (US); McKenna, Jim
Subject: 15-0900-155 RFAAP OBG Soil Quantitative Human Health Risk Assessment

Mr. McAvoy – Please see attached transmittal letter and Human Health Risk Assessment Report for the RFAAP Open Burning Ground Soils.

Thank you and have a wonderful evening.

Matt

Matt Alberts
BAE Systems Environmental
Radford Army Ammunition Plant
Office: 540-639-8722
Mobile: 540-383-5463

BASELINE HUMAN HEALTH

RISK ASSESSMENT

OPEN BURNING GROUND SOIL

RADFORD ARMY AMMUNITION PLANT
RADFORD, VIRGINIA

Prepared For:
BAE Systems, Ordnance Systems Inc.
Radford Army Ammunition Plant
Route 114
Radford, Virginia 24141-0100

Submitted To:
Virginia Department of Environmental Quality
629 East Main Street
Richmond, Virginia 23219
(800) 592-5482

October 13, 2015

Prepared By:

Draper Aden Associates
Engineering • Surveying • Environmental Services

DAA Project Number: B03204-207B

EXECUTIVE SUMMARY

Draper Aden Associates (DAA) performed this quantitative human health risk assessment of exposures to Open Burning Ground (OBG) site soil of site (industrial) workers at the Radford Army Ammunition Plant (RFAAP) located in Radford, Virginia. The assessment focuses on potential carcinogenic and non-carcinogenic health risks that may result from the ingestion, dermal contact, and inhalation of OBG soil.

Based on their review of the 2011 and 2012 OBG Soil Monitoring Annual Reports, the Virginia Department of Environmental Quality (DEQ) informed RFAAP in mid-2013 that a quantitative risk assessment would be required. While DEQ had not previously interpreted the relevant section (Section 3.2 of the Soil Monitoring Program) of the facility Permit this way, their 2013 reinterpretation of the relevant section concluded that a risk assessment was required. RFAAP did not concur with this reinterpretation. Subsequent discussions between RFAAP and DEQ concluded with an agreement that RFAAP would perform this one-time risk assessment using the most recent soil data per the agreed approach, in conjunction with the permit renewal. The agreed approach was memorialized in the facility's March 26, 2015 proposal letter and DEQ's April 29, 2015 approval letter (Appendix A).

This risk assessment was completed in general accordance DEQ's and U.S. EPA's risk assessment guidelines, as well is in accordance with the discussions and agreements between DEQ and RAAP, memorialized in key correspondences dated March 26, 2015, April 29, 2015 and August 21, 2015. DEQ-recommended risk assessment software, REAMS, was used to perform the risk assessment.

This risk assessment is a very conservative estimate of human health risk from exposure of site workers to site soil assuming complete exposure pathways that do not exist and are hypothetical and assuming similarly conservative exposure frequencies and duration which are likely an order of magnitude greater than the actual frequencies and duration of exposure. As such it serves as a conservative baseline estimate of risk.

This risk assessment evaluates existing data for several constituents of potential concern (COPCs) in soil including inorganics, volatile organic compounds, semi-volatile organic compounds, explosives, perchlorate, phthalates, and dibenzodioxins and dibenzofurans (i.e., dioxins/furans). Concentrations of detected constituents in OBG soil reported at or above the laboratory method detection limit (MDL) and the DEQ-recommended value for 3,3'-dimethylbenzidine were used in performing the risk assessment. To date, 3,3'-dimethylbenzidine has not been detected in OBG site soil.

The results of this risk assessment indicate the levels of COPCs detected or presumed in OBG soil do not exhibit carcinogenic or non-carcinogenic risks in excess of acceptable threshold limits. The results of this risk assessment indicate there are no individual hazard quotients or cumulative hazard indices that exceed the acceptable level of 1.0 for both individual COPCs and groups of COPCs. The cumulative excess cancer risks associated with OBG soil do not exceed 1 in 10,000 (10^{-4}) assuming 3,3'-dimethylbenzidine is present in site soil at 2.65 mg/kg, of which there is no evidence. The cumulative cancer risks associated with OBG soil do not exceed 1 in 100,000

(10^{-5}) assuming 3,3'-dimethylbenzidine is present in site soil at 0.265 mg/kg, of which there is no evidence.

As documented in the June 2015 proposed Annual Soil Monitoring Program under the permit renewal, it is the facility's understanding that this one-time risk assessment will serve as a baseline for evaluation of future Annual Soil Monitoring data. In general, the facility proposed with justification that no quantitative risk assessment of future soil monitoring data is required.

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FIGURES

APPENDICES

1.0 INTRODUCTION & REASON FOR RISK ASSESSMENT

This document presents the Quantitative Human Health Risk Assessment of the Open Burning Ground (OBG; also known as Hazardous Waste Management Unit [HMWU] 13) site soil located at the Radford Army Ammunition Plant (RFAAP) in Radford, Virginia. This risk assessment evaluates the carcinogenic and non-carcinogenic risks to site (industrial) workers' exposure to soil at the OBG.

This risk assessment was conducted in accordance with DEQ's interpretation of the requirements specified in Section 3.2 of the Permit Attachment II.B-2 – ***Soil Monitoring Program for the Open Burning Ground,*** which is included in the ***Final Permit for the Treatment of Hazardous Waste by Open Burning*** (Final Permit; effective date October 28, 2005; modified September 27, 2011; and June 12, 2014). The June 12, 2014 Permit Modification updated the facility's Action Levels (ALs).

Based on their review of the 2011 and 2012 OBG Soil Monitoring Annual Reports, DEQ informed RFAAP in mid-2013 that a quantitative risk assessment would be required. DEQ informed RFAAP that a risk assessment must be performed on the most recent annual soil monitoring data because more than 10 non-carcinogenic constituents were observed at reportable concentrations and one chemical, nitroglycerin (NG), exceeded the "1/10 Action Level" in samples collected during several sampling events that occurred in 2011, 2012, and 2013. While DEQ had not interpreted the relevant section (Section 3.2 of Soil Monitoring Program) of the facility Permit this way, previously, from their reinterpretation in 2013 they concluded that a risk assessment was required. RFAAP did not concur with this reinterpretation. Subsequent discussions between RFAAP and DEQ concluded with an agreement that RFAAP would perform this one-time risk assessment using the most recent soil data per the agreed approach, in conjunction with the permit renewal. The agreed approach was memorialized in the facility's March 25, 2015 proposal letter and DEQ's April 29, 2015 approval letter.

Furthermore, it is the facility's understanding that this one-time risk assessment will serve as a baseline for evaluation of future Annual Soil Monitoring data. On June 3, 2015 the facility submitted to DEQ a proposed Annual Soil Monitoring Program under the permit renewal documents. In general, the facility proposed with justification that no quantitative risk assessment of future soil monitoring data is required.

1.1 Risk Assessment Approach

Per DEQ's April 29, 2015 approval letter (Appendix A), this risk assessment addresses data from the Annual Soil Monitoring Events and is not the risk assessment methodology of the closure plan with the facility's Hazardous Waste open burning treatment of the multi-pathway risk assessment requirements as dictated by the permit renewal process. This risk assessment methodology was developed from discussions between the facility and DEQ.

The following summarizes the key requirements of the risk assessment approach, as detailed in DEQ's April 29, 2015 letter shown in Appendix A:

- Compare soil data from the 2014 soil monitoring event to the most recent Action Levels detailed in the current hazardous waste permit. Do not include data that exceed Action Levels where interim measures have occurred to mitigate such exceedances. If more than 10 non-carcinogens are detected, compare soil data against the "1/10 Action Level."

- Perform quantitative risk assessment for the industrial (composite) site worker if target non-carcinogens concentrations exceed the "1/10 Action Level" in one or more soil samples. The risk assessment will be limited to a human health risk assessment for site worker exposure to site soil for 250 days per year by the oral, dermal, and inhalation exposure routes. Treat the entire OBG area as a single unit.

- Perform the quantitative risk assessment in accordance with DEQ risk assessment guidelines using DEQ's risk assessment software, REAMS. Apply standard default DEQ and USEPA Region 3 RSL risk assessment parameters as necessary.

- Perform the quantitative risk assessment for both carcinogens and non-carcinogens; include 3,3'-dimethylbenzidine per DEQ requirements.

- Treat the entire OBG as a single unit. Compute appropriate Upper Confidence Limits (UCLs) on detected soil concentrations for all applicable target constituents. Set UCLs as exposure point concentrations (EPCs).

- Compute individual and cumulative risks of exposure to multiple chemicals in soil through multiple exposure routes. Compare results to DEQ and USEPA standard default acceptable thresholds for cumulative risk, i.e. Hazard Quotient 1 and excess cumulative cancer risk of $1x10^{-4}$. Should the cumulative risks not exceed these threshold levels, no further action will be required.

- Submit gridded, to-scale diagrams depicting all soil sampling locations and depths including samples making up composite samples.

1.2 Physical Site Description

RFAAP is located in the Valley and Ridge Physiographic Province in southwestern Virginia along the New River in Pulaski and Montgomery counties and is divided into two sections by the river. The southern section, which comprises two-thirds of the facility, is known as the Main Plant Area. The northern one-third of the property, which includes the OBG, is known as the Horseshoe Area.

As shown on Figure 1, the OBG is located within the 100-year floodplain of the New River at the southeastern end of the Horseshoe Area. The OBG is relatively flat and is located at approximate coordinates 37.192431°N and 80.524403°W, an approximate elevation of 1,695 feet above Mean Sea Level (MSL). The area slopes steeply upward 75 to 100 feet north of the unit.

1.3 General History and Land Use

The OBG serves as the waste propellant burning ground for the RFAAP facility. Material that cannot be burned in the Explosive Waste Incinerators is burned at the OBG.

1.4 Geologic Conditions of Site

The geology at RFAAP consists of the Cambrian-aged Elbrook Formation comprising limestone and dolomite with some shale and siltstone, covered by weathered residual deposits and/or alluvial deposits. The alluvial deposits have an average thickness of approximately 13 to 20 feet and consist of typical fluvial deposits of interbedded clay, silt, and sand/gravel deposits with lenses of cobbles. In portions of the site, the alluvial deposits and bedrock are separated by residual deposits, which consist of clay, silt, and clasts resulting from weathering of the parent bedrock. The residuum thickness on the site ranges from a few feet to up to 40 feet depending on the location.

The OBG is underlain by the Wheeling Silty Loam, which is characterized by low slopes. The unit includes a surface layer of approximately 10 inches of dark brown sandy loam underlain by 50 inches of dark brown gravelly sandy loam subsoil. At depths greater than 60 inches, the soil is predominantly a mixture of silt and sand with minor amounts of clay.

1.5 Hydrogeologic Conditions of Site

The general hydrogeologic setting for RFAAP is characterized by alluvial sediments overlying weathered and unweathered dolomite and limestone bedrock. In areas where alluvial sediments form the uppermost water-bearing zone, groundwater flow is generally from topographically high areas to topographically low areas. In some areas of the facility, the uppermost water-bearing zone is located within bedrock. Karst features within the bedrock aquifer can provide conduits for transport of groundwater to the New River, which is the discharge area for regional groundwater flow.

2.0 RISK ASSESSMENT FRAMEWORK

2.1 Soil Monitoring Program

The ***Soil Monitoring Program for the Open Burning Ground*** (SMP) was developed to monitor the OBG for potential effects to surface soil resulting from the facility operations. Implementation of the SMP will continue throughout the lifetime of the Resource Conservation & Recovery Act (RCRA) Operating Permit for the OBG facility. The SMP requires soil sampling at prescribed locations. Initially, the SMP required semiannual soil sampling; however, the sampling frequency was reduced from semiannual to annual monitoring as part of the Class 3 Permit Modification approved by the DEQ in correspondence dated September 27, 2011. The soil monitoring event for 2014 was conducted on July 31, 2014. Verification monitoring events occurred on September 18, 2014 and October 22, 2014. Hot Spot event sampling occurred on December 8, 2014.

As the SMP is designed to evaluate potential effects to the site by airborne deposition, soil sample collection targets the uppermost soil horizon. Sample locations were selected to represent the areas of greatest potential to be affected and are located between the burn pans of each burn pad. Each pad is defined as the area of raised topography that contains two individual burn pans. Burn pans are the ceramic or clay-lined vessels that hold waste propellant before and during the open burning process. The sample locations represent areas that are subject to overlapping zones of ejecta from each pan. The ejecta zone is conservatively defined as 20 feet in all directions based on previous studies. The actual sample locations correspond to areas of low topography between each pan that function as the runoff conduit for the pad. These areas are erosion channels that flow toward the river-side berm and to the pond that precedes Outfall 017. The channels are not vegetated.

In addition to the eight samples collected adjacent to the burn pans (PAD 1-8), two discreet grab samples (SB-1 and SB-2) were collected along the southern boundary of the OBG along the New River. Two samples (NB-1 and NB-2) were also collected in the grassed median north of the burn pads. In addition, one grab sample (BERM-1) was collected at the southeast corner of the OBG inside the berm, and one sample (POND-1) was collected at the bottom of the sediment basin. According to the facility permit, if no constituents are detected at the additional monitoring locations (SB-1, SB-2, NB-1, NB-2, BERM-1, and POND-1) above their respective Action Limits (ALs), RFAAP may petition DEQ to cease sampling at these additional locations. To date, no constituents have been detected at these additional monitoring locations at concentrations above their respective ALs.

In accordance with the SMP, the analytical results for the primary annual soil monitoring event conducted in July and subsequent follow-up/verification events for nitroglycerin performed in September, October, and December 2014 were compiled, evaluated and interpreted. to determine whether concentrations of COPCs in soil are greater than the designated ALs and 1/10 AL for non-carcinogens. Analytical results from the July, September, October, and December 2014 soil monitoring event were compared to the ALs updated in 2014 as approved by DEQ in the Class 1 Permit Modification dated June 12, 2014.

The analytical results of the July 2014 Annual Soil Monitoring event are presented in Appendix A.

2.2 Risk Assessment Soil Data Locations

This intent of this risk assessment is to evaluate risk based on the known, current levels of COPCs in OBG soil. The soil data used for this risk assessment was collected from the following locations during the 2014 sampling events. These sample locations (shown on Figure 2) are considered representative of current OBG soil conditions:

- BERM-1
- NB-1
- NB-2
- PAD-1
- PAD-2
- PAD-4
- PAD-5
- PAD-6
- PAD-7
- PAD-8
- POND-1
- SB-1
- SB-2
- PAD-3N
- PAD-3S
- PAD-3E
- PAD-3W

Per DEQ's risk assessment approach, soil data from PAD-3 and the surrounding hotspot sampling locations are excluded from this risk assessment because these impacted soil were removed in 2015 and replaced with clean backfill; therefore, the area represented by this data no longer presents a risk to the site worker.

2.3 Development of Constituents of Potential Concern

The results of the data evaluation from the 2014 soil monitoring event are summarized in the 2014 Annual Soil Monitoring Report. A total of 26 target constituents were detected at concentrations equal to or greater than their respective laboratory method detection limits (MDL/DL) in the soil samples, as shown below.

COPC Detected Above MDL	Carcinogen	Non-Carcinogen
Arsenic	X	X
Chromium, Total	-	-
Chromium, VI	X	X
Diphenylamine	-	X
2,4-Dinitrotoluene	X	X
2,6-Dinitrotoluene	X	X
2,4,6-Trinitrotoluene	X	X
HMX	-	X
RDX	X	X
Nitroglycerin	X	X
Mercury	-	X
Diethyl phthalate	-	X
Dimethyl phthalate	-	-
Fluoranthene	-	X
Naphthalene	X	X
Benzo(a)anthracene	X	-
Bis(2-Ethylhexyl)phthalate	X	X

COPC Detected Above MDL	Carcinogen	Non-Carcinogen
Di-n-butyl phthalate	-	X
Lead	-	-
Selenium	-	X
Barium	-	X
Silver	-	X
Cadmium	-	X
Dioxin/Furans (2,3,7,8-TCDD)	X	X
Perchlorate	-	X
TPH-Diesel Range Organics (DRO)	X	X

The determination of whether a specific constituent is a carcinogen or a non-carcinogen is dependent upon that chemical's classification in the June 2015 USEPA Region 3 Regional Screening Level (RSL) Summary Table and/or its classification in the USEPA Integrated Risk Information System (IRIS; website www.epa.gov/IRIS/).

As specified in the Permit, if ten or more non-carcinogenic COPCs are detected during a single sampling event, the concentrations are compared to 1/10 the RSL of those constituents. This comparison is a qualitative evaluation that has no bearing on the risk evaluation of the site, and does not trigger corrective action or interim measures at the site.

Detected COPCs dimethyl phthalate and lead were not determined to be either carcinogenic or non-carcinogenic.

The constituent 3,3'-dimethylbenzidine was not detected in OBG soil above the MDL; however, in several cases the MDL exceeded the Action Limit. For this reason, the DEQ required using the value of 2.65 mg/kg as the exposure point concentration applied to this risk assessment.

2.4 Screening of Constituents of Potential Concern Applied to Risk Assessment

Though lead and dimethyl phthalate were detected in site soil and are considered COPCs, they are excluded from the risk assessment because neither of the constituents have defined toxicity parameters; therefore, risk calculations associated with these constituents cannot be performed.

TPH-DRO is also excluded because its toxicity parameters are not defined and also because it is not an individual chemical of concern associated with burn operations and air-borne deposition in soil at the OBG. The use of TPH toxicity parameters listed on EPA's Region 3 RSL Table is based on a single surrogate chemical constituent and therefore inappropriately and disproportionally affects the outcome of the risk assessment, and is not considered an accurate quantification of risk. Several of the actual chemical constituents that constitute TPH are part of the target constituent list for OBG, and therefore risks associated from those actual chemical constituents associated with TPH are already accounted for.

Several metals detected in soil above the MDL are excluded from the risk assessment because the detected concentrations did not exceed the facility-wide background concentration (FWBC). These metals are:

- Arsenic
- Barium
- Chromium
- Cadmium
- Chromium VI

2.5 Summary of Constituents of Potential Concern Evaluated

COPCs include applicable target constituents for which detections were observed on the July 31, 2014 annual soil monitoring event and whose UCLs/maximum detected concentrations do not exceed their FWBCs. Data collected from each sample location during this monitoring event was used with the exception of the nitroglycerin data for PAD-3. That hotspot has been further evaluated and the soil from that location and within a radius of 5 feet has been removed and disposed of offsite. Four independent soil samples spaced greater than 10 feet from each other were collected at PAD-3 for nitroglycerin during the verification event performed on October 22, 2014. These four sampling locations are outside of the hotspot area from which soil was eventually removed and disposed of offsite (in June 2015). This data consists of PAD-3N (29 mg/kg), PAD-3S (29.6 mg/kg), PAD-3E (9.64 mg/kg) and PAD-3W (2.69 mg/kg) and has been incorporated into this risk assessment.

COPCs evaluated in this risk assessment are those constituents that were detected at or above the method detection limit in at least one sample in OBG soil at levels greater than the FWBC during the 2014 sampling event that have associated carcinogenic or non-carcinogenic risk parameters on the USEPA Region 3 RSL Summary Table or DEQ's ACL Table. The COPCs evaluated as part of this risk assessment are:

- Diphenylamine
- 2,6-Dinitrotoluene
- RDX
- Diethyl phthalate
- Benz(a)anthracene
- Selenium
- Perchlorate
- 2,4,6-Trinitrotoluene
- Nitroglycerin
- Fluoranthene
- Bis(2-ethylhexyl)phthalate
- Silver
- 2,4-Dinitrotoluene
- HMX
- Mercury
- Naphthalene
- Di-n-butyl phthalate
- Dioxin/Furans

Though not detected in soil above the MDL, 3,3'-dimethylbenzidine is also evaluated in this risk assessment at DEQ's direction.

3.0 HUMAN HEALTH EXPOSURE AND RISK ASSESSMENT

This human health exposure and risk assessment evaluates the sources of potential human exposure, identifies transport mechanisms, primary receptors, exposure points and exposure routes at the Site; evaluates exposure pathways, and characterizes risk. The following risk assessment was conducted in accordance with USEPA and DEQ guidelines for the purpose of evaluating potential risks to human health posed by OBG soil.

3.1 Site Conceptual Exposure Model

The Site Conceptual Exposure Model (SCEM) depicts potential releases, exposure routes and actual and potential receptors who may be exposed via direct and indirect contact. In this risk assessment, the potential receptor is limited to the site worker with direct contact to site soil.

3.1.1 Sources of Impact and Receiving Media

The source of soil impact has been identified as a historical and on-going use, the open burning of waste propellants at the OBG. Soil data shown in Table 1 summarizes the detected concentrations in surface soil samples collected in 2014.

3.1.2 Exposure Points and Routes

Exposure points are locations where exposure could occur and exposure routes describe the basic mechanisms by which a chemical of concern may contact the body. Combined, the five elements of the site conceptual model (source, transport mechanism, receptors, exposure points, exposure routes) are referred to as the exposure pathway. All five elements of the exposure pathway must be present to be considered a complete exposure pathway. Receptors may be exposed to sources via multiple pathways depending on their activity patterns. This multiple pathway exposure is referred to as exposure scenario.

Exposure points on the site are assumed to be impacted soil that have the potential to be contacted by a human receptor. This risk assessment focuses on the exposure of site workers to OBG soil via primary exposure routes including incidental ingestion, dermal contact, and inhalation of particulates. The facility notes that such direct exposure to site soil by site workers is a practically non-existent scenario. RFAAP requires site workers operating at the OBG to don personnel protective equipment that effectively makes the exposure pathway incomplete and consequently eliminates any actual physical exposure of site workers to site soil. Therefore this risk assessment is a very conservative assessment of risks to human health. Actual risks are considered to be significantly lower than the calculated risks from this assessment.

3.2 Exposure Point Concentrations

Assuming its hypothetical existence, the complete exposure pathway evaluated in this risk assessment is the exposure of the site worker to COPC-impacted site soil via the primary exposure routes.

The concentrations of COPCs to which site workers are expected to be exposed is based on an estimate of the exposure point concentration (EPC) at the OBG. The EPC is the highest exposure

that is reasonably expected to occur at the OBG and is calculated by combining upper-end estimates of exposure parameters with a conservative estimate of the mean/median concentration to which receptors will be exposed. For this risk assessment, the conservative estimate of the mean/median concentration of each COPC detected in soil is typically the 95 percent upper confidence limit (95UCL) calculated on the mean concentration. The 95UCL for each COPC was calculated using the statistical method recommended by ProUCL for the data set based on the properties of the underlying data. The resulting 95UCL for each COPC is the EPC. In certain cases ProUCL recommends a different UCL which has been used. If the 95UCL cannot be adequately calculated, the maximum detected concentration conservatively serves as the EPC.

Using the data sets for OBG soil including non-detects (Appendix B ProUCL Input), data for each COPC was entered into USEPA's ProUCL 5.0 software to calculate the exposure point concentration UCL for each COPC. Each piece of data in each data set is either the quantified total concentration of the COPC in soil (identified with a "1" in Appendix B) or is assumed to be equal to the method detection limit if the concentration was too low to be accurately quantified (i.e. "non-detect", identified with a "0" in Appendix B). In some cases where an elevated MDL was observed, an average MDL is used. For example, the chemical bis(2-ethylhexyl)phthalate was detected in five of 13 soil samples. Of the eight non-detect values reported at the MDL (generally ranging from 0.067 mg/kg to 0.086 mg/kg), two MDL values were reported at 0.37 and 0.7. Since these MDLs were abnormally high relative to the majority of the MDL values, they were replaced by the average MDL (shown in italics in Appendix B) calculated using the six other MDL values.

The calculated EPCs are shown in Table 2 and the ProUCL output for each COPC data set is presented in Appendix C. The calculated EPC for each COPC is used as the input soil concentration in the REAMS exposure model.

The EPC for 3,3'-dimethylbenzidine is the DEQ-recommended value of 2.65 mg/kg (half the highest elevated detection limit due to sample dilutions). For comparison purposes, this risk assessment uses both 2.65 mg/kg and 0.265 mg/kg as the EPC for 3,3'-dimethylbenzidine. The risk assessment also evaluates site soil assuming 3,3'-dimethylbenzidine is not present.

3.3 Estimated Chemical Intake Values and Exposure Concentrations

Exposure to COPCs was evaluated using the DEQ's REAMS software and USEPA Risk Assessment Guidance for Superfund (RAGS). As shown in Table 3, the exposure parameters applied to the intake equations are the most recently recommended USEPA default values for the site worker and/or outdoor site worker soil exposure scenario or the most recent REAMS default values. The exposure parameters can be referenced in the USEPA Risk Assessment Guidance for Superfund (RAGS) Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors (2014).

To calculate risk according to individual exposure routes (ingestion, dermal, inhalation), the chronic daily intake (mg/kg-day) is first calculated for each COPC for each exposure route for the site worker. According to RAGS and REAMs, the approach for calculating ingestion exposure involves the application of the estimated EPC for each COPC to an intake equation that uses the site worker exposure parameters based on the ingestion exposure route. In this risk assessment, the chronic daily intake equation for ingestion of soil is:

$$Intake, Ing\left(\frac{mg}{kg-day}\right) = \frac{(CS)(IR)(CF)(EF)(ED)}{(AT)(BW)}$$

Where:

CS = Chemical concentration in soil; 95UCL or max detection of COPC (mg/kg)

IR = Ingestion Rate (mg/day)

CF = Conversion Factor, $1x10^{-6}$ (kg/mg)

EF = Exposure Frequency (days/year)

ED = Exposure Duration (years)

BW = Body Weight (kg)

AT = Averaging Time (days)

For dermal exposure, the calculation for chronic daily intake is very similar to ingestion though the dermal exposure intake equation accounts for skin surface area, fraction of skin exposed, and a chemical-specific absorption factor. In this risk assessment, the chronic daily intake equation for dermal absorption is:

$$Intake, Derm\left(\frac{mg}{kg-day}\right) = \frac{(CS)(CF)(ABS)(EF)(ED*SA*AF)}{(BW)(AT)}$$

Where:

CS = Chemical concentration in soil; 95UCL or max detection of COPC (mg/kg)

CF = Conversion Factor, $1x10^{-6}$ (kg/mg)

SA = Skin surface area (cm^2)

AF = Adherence Factor (mg/cm^2)

ABS = Absorption Fraction (unitless)

EF = Exposure Frequency (days/year)

ED = Exposure Duration (years)

BW = Body Weight (kg)

AT = Averaging Time (days)

For inhalation exposure, the calculation for the exposure concentration uses a particulate emission factor (PEF) and a chemical-specific volatilization factor (VF) to calculate the exposure

concentration in air. In this risk assessment, the equation to calculate the exposure concentration to constituents in air is:

$$Exposure\ Concentration, Inh\left(\frac{\mu g}{m\text{^}3}\right) = \frac{(CS)(ET)(EF)(ED)(\left(\frac{1}{VF}\right) + \left(\frac{1}{PEF}\right)) * CF)}{(AT)}$$

Where:

CS = Chemical concentration in soil; 95UCL or max detection of COPC (mg/kg)

ET = Exposure Time (hr/hr)

EF = Exposure Frequency (days/year)

ED = Exposure Duration (years)

VF = Volatilization Factor (m^3/kg)

PEF = Particulate Emission Factor (m^3/kg)

AT = Averaging Time (days)

CF = Conversion Factor, $1x10^3$ (µg/mg)

The estimated exposure concentrations for the ingestion, dermal, and inhalation pathways are applied to cancer risk and non-cancer hazard equations using the appropriate carcinogenic slope factors and toxicity values to calculate the estimated daily intake of COPCs.

3.4 Toxicity Assessment

Carcinogenic slope factors and toxicity values, as shown in Table 4, are chemical-specific parameters used to calculate carcinogenic risks and non-carcinogenic hazard indices. For this risk assessment, the most recent values used in the exposure model were derived from the 2015 Region 3 RSL Table, the IRIS website, or the default REAMs value.

3.5 Risk Characterization

3.5.1 Individual Exposure Route and Constituents of Concern

For risk characterization, individual exposure routes are quantitatively evaluated by applying receptor-specific (site worker) chemical intake values to the cancer risk and non-cancer hazard equations in the REAMS software package. Using the input values, REAMS calculates the potential risk for each COPC for each exposure route (ingestion, dermal, inhalation) for the site worker.

The equations for calculating the cancer risk for each of the three individual exposure routes are as follows:

$$Ingestion\ Cancer\ Risk = Oral\ Intake\ \left(\frac{mg}{kg-day}\right) x\ Oral\ Slope\ Factor\ \left(\frac{mg}{kg-day}\right)^{-1}$$

$$Dermal\ Cancer\ Risk = Dermal\ Intake\ \left(\frac{mg}{kg-day}\right) x\ Dermal\ Slope\ Factor \left(\frac{mg}{kg-day}\right)^{-1}$$

$$Inhalation\ Risk = Exposure\ Concentration \left(\frac{\mu g}{m^3}\right) x\ Unit\ Inhalation\ Risk\ \left(\frac{\mu g}{m^3}\right)^{-1}$$

The equations for calculating non-cancer hazard quotients (HQ) for individual exposure routes are as follows:

$$Ingestion\ HQ = \frac{Ingestion\ Intake\ (\frac{mg}{kg-day})}{Oral\ Reference\ Dose\ (\frac{mg}{kg-day})}$$

$$Dermal\ HQ = \frac{Dermal\ Intake\ (\frac{mg}{kg-day})}{Dermal\ Reference\ Dose\ (\frac{mg}{kg-day})}$$

$$Inhalation\ HQ = \frac{Exposure\ Concentration\ (\mu g/m^3)}{Toxicity\ Value\ \left(\frac{mg}{m^3}\right) x\ 1000\ \mu g/mg}$$

3.6 Exposure Model Results

3.6.1 Individual Risks to Site Workers Exposed to OBG Soil

Cancer risks and non-cancer hazard quotients (HQs) for the site worker exposed to each individual exposure route were calculated by REAMS with software output and results presented in Appendix D. The calculated individual cancer risks and HQs are summarized in Table 5.

Except for 3,3'-dimethylbenzidine, the results of the individual risk calculations indicate cancer risks of less than $1x10^{-6}$ across all individual exposure routes for all COPCs. The results of the non-cancer hazard quotient calculations indicate HQs of less than 1.0 for all receptors across all individual exposure routes for all COPCs.

3.6.2 Cumulative Risks to Site Workers Exposed to OBG Soil

It is presumed site workers will be exposed to soil containing all COPCs; therefore, cumulative risks associated with soil and exposure route (ingestion, dermal, inhalation) is calculated by summing the risks associated with each COPC. The cumulative risks for each exposure route are shown in Table 6. The sum risk associated with all exposure routes is the total pathway risk.

Assuming the 3,3'-dimethylbenzidine EPC is 2.65 mg/kg in OBG soil, the total pathway cancer risk for site workers exposed to OBG soil is 1.38×10^{-5} and the total hazard index is 0.263.

If it is assumed the 3,3'-dimethylbenzidine EPC is 0.265 mg/kg in OBG soil, the total pathway risk for site workers exposed to OBG soil is 2.47×10^{-6} and the total hazard index is 0.263.

If it is assumed the 3,3'-dimethylbenzidine does not exist in OBG soil, the total pathway risk for site workers exposed to OBG soil is 1.21×10^{-6} and the total hazard index is 0.263.

3.6.3 Uncertainty Analysis

This risk assessment presents conservative estimates of potential risks associated with exposure to COPCs in OBG soil. Uncertainty is inherent in the risk assessment process and is discussed in this section. Each of the three basic building blocks for risk assessment (monitoring data, exposure scenarios, and toxicity values) contribute uncertainties, each of which is accounted for by using conservative assumptions when specific data are unavailable.

Overall, the assumptions made in this analysis are likely to lead to a significant overestimation of risk to the average receptor at the site, rather than an underestimate. The risk estimates reported in this risk assessment combine upper-end exposure assumptions and conservative estimates of the exposure point concentrations (95% UCL).

In this risk assessment, overestimation of risk is also driven by the presumed 2.65 mg/kg EPC for 3,3'-dimethylbenzidine. At this concertation, 3,3'-dimethylebenzidine is the only COPC with an individual cancer risk estimate greater than 1×10^{-6}.

This risk assessment may also underestimate risk, presumably by a negligible amount, by excluding exposure to dimethyl phthalate and lead. Both of these constituents were detected in OBG soil; however, neither of these constituents have defined toxicity values, therefore, calculating risk using the methodology presented in this risk assessment is not feasible.

3.6.4 Limitations of REAMS

The REAMS software is the recommended tool for evaluating potential risk and was used for this OBG soil risk assessment. During the course of the developing the exposure model, several limitations were observed:

- Naphthalene, a COPC in OBG soil, is considered both a carcinogen and a non-carcinogen; therefore, it is run in the REAMS model as "both" in the "Type" column of the Media Parameters tab. Naphthalene is only considered a carcinogen for the inhalation exposure route, not for dermal or ingestion. As a non-carcinogen, naphthalene is considered toxic

via all exposure routes. REAMS requires all columns to be populated to run the risk analysis for all exposure routes as both carcinogen and non-carcinogen. Since naphthalene does not have an oral slope factor, a value must be substituted in this cell for the REAMS model to run. For this risk assessment, the RFD_{oral} value of 0.02 mg/kg-day was used as the oral slope factor to make the model run. The resulting cancer risk for the ingestion exposure route computed to $1x10^{-10}$; a negligible amount.

- Similarly, for 2,4-dinitrotoluene and bis(2-ethylhexyl)phthalate, there are no $RfC_{inhalation}$ values available for these constituents. Both constituents are run in the REAMS model as carcinogenic and non-carcinogenic, and both constituents have an Inhalation Unit Risk Factor (IUR) so the inhalation route must be evaluated. Since there are no $RfC_{inhalation}$ values associated with these constituents, values must be substituted to make the model run. In these cases, a disproportionally high number (1,000 mg/kg-day) is substituted to force the calculated hazard quotient to be low since there is no data with the inhalation exposure route for these constituents. The resulting hazard associated with the inhalation route computes to a negligible amount.

- The oral reference dose (RFD_{oral}) for dioxins as TCDD-2,3,7,8 is $7x10^{-10}$ mg/kg-day; however, the lowest value able to be entered into this cell in REAMS is $1x10^{-8}$ mg/kg-day. The resulting hazard quotient for dioxins computes as two orders of magnitude lower than if the true oral reference dose was applied to the model; however, the difference relative to the cumulative hazard index is negligible.

- REAMS output indicates the standard default value for the volatilization factor (VF) applied to the inhalation of particulates via soil is 0.5; however, hand calculations indicate this value is not used by the model. Only chemical-specific values for VF are used by the model.

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

Based on their review of the 2011 and 2012 OBG Soil Monitoring Annual Reports, the DEQ required RFAAP to perform a quantitative risk assessment of OBG soil. While DEQ had not previously interpreted the relevant section (Section 3.2 of Soil Monitoring Program) of the facility Permit this way, their 2013 reinterpretation of the Section 3.2 concluded that a risk assessment was required. RFAAP did not concur with this reinterpretation; however, RFAAP subsequently agreed to perform this one-time risk assessment using the most recent soil data (at that time the most recent data was from July 2014) per the agreed approach, in conjunction with the permit renewal. The agreed approach was memorialized in the facility's March 26, 2015 proposal letter and DEQ's April 29, 2015 approval letter.

This risk assessment was completed in general accordance DEQ's and U.S. EPA's risk assessment guidelines, as well is in accordance with the discussions and agreements between DEQ and RAAP, memorialized in key correspondences dated March 26, 2015, April 29, 2015 and August 21, 2015. DEQ-recommended risk assessment software, REAMS, was used to perform the risk assessment.

This risk assessment evaluated the risks associated with constituents of potential concern detected in OBG soil during the July 2014 annual soil monitoring event. The analytical soil data were input into ProUCL to quantify the exposure point concentrations for the site worker. The 95UCLs or alternative UCL recommended by ProUCL for detected constituents were applied to the REAMS exposure model as the exposure point concentration along with applicable DEQ/USEPA standard default risk assessment parameters to calculate the estimated daily intake by the site worker of each COPC by each exposure route (ingestion, dermal, inhalation).

The results of this risk assessment for individual COPCs indicate excess lifetime cancer risks do not exceed 1 in 100,000 (1×10^{-5}) for OBG soil, except for 3,3'-dimethylbenzidine (only when using the extremely conservative value of 2.65 mg/kg as the EPC, as required by DEQ). The hazard quotients calculated to quantify appreciable risk of non-carcinogens did not exceed one (1.0) for any individual or group of COPCs.

The total pathway cumulative excess cancer risks posed by multiple COPCs and exposure routes do not exceed one in ten-thousand (1×10^{-4}) for the site worker exposure scenario. The hazard index for non-carcinogenic effects (sum of hazard quotients for multiple COPCs and exposure routes) does not exceed 1.0.

Overall, the levels of COPCs detected in OBG soil do not exhibit unacceptable levels of carcinogenic or non-carcinogenic effects when evaluated using a conservative model. The only COPC in OBG soil that exceeded an excess lifetime cancer risk of 1 in 100,000 is 3,3'-dimethylbenzidine which is a constituent that has never been detected in site soil.

4.2 Recommendations and Future Evaluation

Overall, cumulative risks do not exceed threshold levels; therefore, per the approach detailed by DEQ, no further action is required.

The results of this risk assessment indicate that cumulative risks and hazards associated with observed concentrations of COPCs in OBG soil are an order of magnitude below the recommended risk threshold. For example, if it is assumed that 3,3'-dimethylbenzidine is not present in site soil (or at levels less than 1 mg/kg; which is supported by the data), the cumulative cancer risk does not exceed 1 in 100,000.

As previously noted this risk assessment is a very conservative estimate of human health risk from exposure of site workers to site soil assuming complete exposure pathways that do not exist and are hypothetical and assuming similarly conservative exposure frequencies and duration which are likely an order of magnitude greater than the actual frequencies and duration of exposure. As such it serves as a very conservative baseline estimate of risk.

The results of this risk assessment provide a baseline for the interpretation of future OBG annual soil monitoring data. In accordance with the agreement between BAE and DEQ, this is a one-time risk assessment which will serve as a baseline for evaluation of future Annual Soil Monitoring data. On June 3, 2015 the facility submitted to DEQ a proposed Annual Soil Monitoring Program under the permit renewal documents. In general, the facility proposed with justification that no quantitative risk assessment of future soil monitoring data is required. Furthermore, the soil monitoring data from 2015 and the historical soil monitoring data is consistent with the 2014 soil monitoring data on which this baseline risk assessment was performed.

5.0 REFERENCES

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USEPA Region 3 Region Screening Level (RSL) Composite Worker Soil Table, June 2015.

Tables

Table 1 - Open Burning Ground Soil Concentration Data (Detected Constituents Only)
July 31, 2014 Sampling Event

Sample Locatoin ID	Detected Consituent Concentrations in Soil (mg/kg)								
	Arsenic	Chromium, total	Chromium, hexavalent	Diphenylamine	Perchlorate	2,4-Dinitrotoluene	2,6 Dinitrotoluene	2,4,6 Trinitrotoluene	HMX
BERM-1	1.8	14	NS	0.12 J	NS	0.083 U	NS	0.083 U	0.21 U
NB-1	1.6	15	NS	0.2 J	NS	0.0986 U	NS	0.131 J	0.0986 U
NB-2	1.3	12	NS	0.17 J	NS	0.0989 U	NS	0.0989 U	0.224 J
PAD-1	1.4	13	0.28 U	0.073 J	0.00102 U	0.249	0.418	0.101 U	0.101 U
PAD-2	2.2	35	0.74 J	0.034 U	0.00102 U	0.104 U	0.104 U	0.104 U	0.104 U
PAD-4	2	16	0.3 U	0.56 J	0.00491	3.18	0.0986 U	0.0986 U	0.836
PAD-5	1.6	13	0.28 U	0.038 J	0.00756	0.433	0.102 U	0.102 U	0.102 U
PAD-6	0.88	30	1.6	1.7 J	0.00621	0.0966 U	0.0966 U	0.0966 U	0.0966 U
PAD-7	1.9	13	0.29 U	0.17 J	0.00181 J	0.0973 U	0.0973 U	0.0973 U	0.0973 U
PAD-8	1.4	13	0.28 U	0.074 J	0.00101 U	0.0996 U	0.0996 U	0.0996 U	0.0996 U
POND-1	1.7	13	NS	0.098 J	NS	2.28	NS	0.327	0.101 U
SB-1	2.1	19	NS	0.043 U	NS	0.0964 U	NS	0.0964 U	0.0964 U
SB-2	2.2	21	NS	0.079 J	NS	0.103 U	NS	0.527	0.103 U
PAD-3N	NS	NS	NS	NS	NS	NS	NS	NS	NS
PAD-3S	NS	NS	NS	NS	NS	NS	NS	NS	NS
PAD-3E	NS	NS	NS	NS	NS	NS	NS	NS	NS
PAD-3W	NS	NS	NS	NS	NS	NS	NS	NS	NS

Notes:

- J flag denotes concentratoin is above method detection limit but below laboratory reporting limit
- U flag denotes concentration is below method detectoin limt; value is reported as method detection limit
- NS - Not Sampled
- PAD-3 data is not shown because impacted soils have been removed and properly disposed.
-Samples PAD-3N, PAD-3S, PAD-3E, and PAD-3W were collected October 22, 2014 beyond the extents of soil removal and only analyzed for target analyte nitroglycerin.
- July 31, 2014 Soil Monitoring Event data is detailed in Appendix A.

Table 1 - Open Burning Ground Soil Concentration Data (Detected Constituents Only)
July 31, 2014 Sampling Event

Sample Locatoin ID	Detected Consituent Concentrations in Soil (mg/kg)							
	RDX	Nitroglycerin	Mercury	Diethyl phthalate	Dimethyl phthalate	Fluoranthene	Naphthalene	Benzo(a) - anthracene
BERM-1	NS	14	NS	0.068 U	0.068 U	NS	NS	NS
NB-1	NS	1.98	NS	1.2	0.33	NS	NS	NS
NB-2	NS	0.741 J	NS	0.65	0.075 U	NS	NS	NS
PAD-1	0.101 U	23.1	0.016 U	0.068 U	0.068 U	0.003 U	0.003 U	0.003 U
PAD-2	0.104 U	9.17	0.016 U	0.068 U	0.068 U	0.005 J	0.003 U	0.005 J
PAD-4	5.28	17.5	0.017 U	0.42 J	0.37 U	0.029 J	0.034 J	0.027 J
PAD-5	0.102 U	11.1	0.027 J	0.068 U	0.068 U	0.006 J	0.005 J	0.003 U
PAD-6	0.0966 U	53.1	0.019 J	0.78 J	0.7 U	0.076 J	0.035 U	0.035 U
PAD-7	0.0973 U	20.2	0.016 U	0.17 J	0.07 U	0.005 J	0.007 J	0.003 U
PAD-8	0.0996 U	13.2	0.015 U	0.067 U	0.15 J	0.004 J	0.003 U	0.003 U
POND-1	NS	8.66	NS	0.36	0.069 U	NS	NS	NS
SB-1	NS	0.0964 U	NS	0.086 U	0.086 U	NS	NS	NS
SB-2	NS	0.103 U	NS	0.51	0.09 U	NS	NS	NS
PAD-3N	NS	29	NS	NS	NS	NS	NS	NS
PAD-3S	NS	29.6	NS	NS	NS	NS	NS	NS
PAD-3E	NS	9.64	NS	NS	NS	NS	NS	NS
PAD-3W	NS	2.69	NS	NS	NS	NS	NS	NS

Notes:

- J flag denotes concentratoin is above method detection limit but below laboratory reporting limit
- U flag denotes concentration is below method detectoin limt; value is reported as method detection limit
- NS - Not Sampled
- PAD-3 data is not shown because impacted soils have been removed and properly disposed.
-Samples PAD-3N, PAD-3S, PAD-3E, and PAD-3W were collected October 22, 2014 beyond the extents of soil removal and only analyzed for target analyte nitroglycerin.
- July 31, 2014 Soil Monitoring Event data is detailed in Appendix A.

Table 1 - Open Burning Ground Soil Concentration Data (Detected Constituents Only)
July 31, 2014 Sampling Event

Sample Locatoin ID	Detected Consituent Concentrations in Soil (mg/kg)									
	bis (2-Ethylhexyl) phthalate	Di-n-butyl phthalate	Lead	Selenium	Barium	Silver	Cadmium	Dioxin (ng/mg)	TPH-Diesel	
BERM-1	0.082 J	2.1	120	0.42 U	81	NS	0.16 J	1.5	NS	
NB-1	0.7	0.99	240	0.47 U	110	NS	0.43 J	6.35	NS	
NB-2	0.34	0.54	210	0.52 U	100	NS	0.2 J	3.18	NS	
PAD-1	0.31	0.32	38	0.41 U	89	0.11 J	0.12 J	0.43	4.2	U
PAD-2	0.068 U	0.12 J	160	0.46 U	120	0.29 J	0.23 J	1.71	NS	
PAD-4	0.37 U	1.1	270	0.46 U	140	0.15 J	0.27 J	10.07	190	
PAD-5	0.068 U	0.19	150	0.41 J	140	0.11 J	0.11 J	1.44	NS	
PAD-6	0.7 U	20	610	0.44 U	92	0.098 U	0.16 J	2.61	NS	
PAD-7	0.07 U	0.48	81	0.43 U	100	0.096 U	0.11 J	1.7	8.4	J
PAD-8	0.067 U	0.43	110	0.42 U	80	0.11 J	0.059 J	0.49	NS	
POND-1	0.069 U	0.4	86	0.4 U	92	NS	0.14 J	1.9	NS	
SB-1	0.086 U	0.086 U	54	0.52 U	100	NS	0.23 J	1.82	NS	
SB-2	0.47	2.4	120	0.58 U	120	NS	0.39 J	5.12	NS	
PAD-3N	NS	NS	NS	NS	NS	NS	NS	NS	NS	
PAD-3S	NS	NS	NS	NS	NS	NS	NS	NS	NS	
PAD-3E	NS	NS	NS	NS	NS	NS	NS	NS	NS	
PAD-3W	NS	NS	NS	NS	NS	NS	NS	NS	NS	

Notes:

- J flag denotes concentratoin is above method detection limit but below laboratory reporting limit
- U flag denotes concentration is below method detectoin limt; value is reported as method detection limit
- NS - Not Sampled
- PAD-3 data is not shown because impacted soils have been removed and properly disposed.
-Samples PAD-3N, PAD-3S, PAD-3E, and PAD-3W were collected October 22, 2014 beyond the extents of soil removal and only analyzed for target analyte nitroglycerin.
- July 31, 2014 Soil Monitoring Event data is detailed in Appendix A.

Table 2 - Open Burning Ground Constituents of Potential Concern and Exposure Point Concentrations

Detected Constituents	Frequency of Detections (Number of Detects/Number of Samples)	Maximum Soil Concentration (mg/kg)	UCL/Exposure Point Concentration (mg/kg)	Rationale	COPC?	Notes
Arsenic	13/13	2.2	1.892	95% Student's-t UCL	**No**	See Note 5
Chromium, Total	13/13	35	21.04	95% Student's-t UCL	**No**	See Note 11
Chromium, VI	2/7	1.6	1.015	95% KM (t) UCL	**No**	See Note 6
Diphenylamine	11/13	1.7	1.052	97.5% Chebyshev (Mean, Sd) UCL	Yes	
2,4-Dinitrotoluene	4/13	3.18	1.078	95% KM (t) UCL	Yes	
2,6-Dinitrotoluene	1/7	0.418	0.418	Max Detected	Yes	EPC is max detection
2,4,6-Trinitrotoluene	3/13	0.527	0.218	95% KM (t) UCL	Yes	
HMX	2/13	0.836	0.301	95% KM (t) UCL	Yes	Substituted average DL (0.09995) for one elevated dilution DL (0.21)
RDX	1/7	5.28	5.28	Max Detected	Yes	EPC is max detection
Nitroglycerin	15/17	53.1	20.21	95% KM (t) UCL	Yes	See Note 4
Mercury	2/7	0.27000	0.0216	95% KM (t) UCL	Yes	See Note 12
Diethyl phthalate	7/13	1.2	0.529	95% KM (t) UCL	Yes	
Dimethyl phthalate	2/13	0.33	0.144	95% KM (t) UCL	Yes	Substituted average DL (0.073556) for two elevated dilution DLs (0.37 and 0.7)
Fluoranthene	6/7	0.076	0.083	97.5% Chebyshev (Mean, Sd) UCL	Yes	
Naphthalene	3/7	0.034	0.0178	95% KM (t) UCL	Yes	Substituted average DL (0.003) for elevated one dilution DL (0.035)
Benzo(a)anthracene	2/7	0.027	0.027	Max Detected	Yes	Substituted average DL (0.003) for elevated one dilution DL (0.035), EPC is max detection
bis(2-Ethylhexyl)phthalate	5/13	0.47	0.297	95% KM (t) UCL	Yes	Substituted average DL (0.07133) for two elevated dilution DLs (0.37 and 0.7)
Di-n-butyl phthalate	12/13	20	11.6	97.5% Chebyshev (Mean, Sd) UCL	Yes	
Lead	13/13	610	246.4	95% Student's-t UCL	Yes	
Selenium	1/13	0.41	0.41	Max Detected	Yes	EPC is max detection
Barium	13/13	140	114.8	95% Student's-t UCL	**No**	See Note 9
Silver	5/7	0.29	0.19	95% KM (t) UCL	Yes	
Cadmium	13/13	0.43	0.255	95% Student's-t UCL	**No**	See Note 10
Dioxin	13/13	10.07	5.018	95% Adjusted Gamma UCL	Yes	
Perchlorate	4/7	0.0076	0.00556	95% KM (t) UCL	Yes	
3,3'-Dimethylbenzidine	0/7	NA	2.65	NA	Yes	EPC is VDEQ-required

NOTES:

1. UCL-Statistical Upper Confidence Limit. Statistical analysis was performed using USEPA software ProUCL 5.0, in accordance with DEQ Guidance and in coordination with DEQ staff.
2. EPC-Exposure Point Concentration
3. COPC-Constituent of Potential Concern.
4. COPCs include all applicable target constituents for which detections were observed on the July 31, 2014 annual soil monitoring event and whose UCLs/maximum detected concentrations do not exceed their site/facility-wide background concentrations. Data collected from every sample location during this monitoring event was used with the exception of the nitroglycerin data for PAD-3. That hotspot has been further evaluated and the soil from that location and within **a radius of 5 feet** has been removed and disposed offsite. Four independent soil samples spaced greater than 10 feet from each other were collected at PAD-3 for nitroglycerin during Verification event performed on October 22, 2014. These 4 sampling locations are outside of the hotspot area from which soil was eventually removed and disposed offsite (in June 2015). This data consists of PAD-3N (29 mg/kg), PAD-3S (29.6 mg/kg), PAD-3E (9.64 mg/kg) and PAD-3W (2.69 mg/kg) and has been incorporated into this risk assessment.
5. Arsenic is not considered a COPC because detections in soil ranging from 0.88 to 2.2 mg/kg were less than the facility-wide background concentration (FWBC) of 15.8 mg/kg documented in the 2001 ***Facility-Wide Background Study Report***. The DEQ approved Action Limit for Arsenic for Open Burning Ground is its FWBC of 15.8 mg/kg.
6. Hexavalent chromium is not considered a COPC because detections in soil (0.74 and 1.6 mg/kg) were both less than the maximum background concentration of 1.9 mg/kg observed on April 5, 2012, and five out of seven samples from the July 31, 2014 monitoring event were less than the detection limit. As allowed under the facility permit eight background samples were collected from locations approved in the 2001 ***Facility-Wide Background Study Report***.
7. Per VDEQ's requests, 3,3'-Dimethylbenzidine is considered a COPC even though has never been observed above the detection limit in any soil sample. This constituent is analyzed by USEPA SW-846 Method 8270D which is the optimal and widely used method. While the typical detection limit (LOD) for this constituent during the July 31, 2014 event varied around approximately 0.5 mg/kg with LODs for a few samples at higher levels, historically the LOD for this constituent has been significantly less than the Action Limit of 0.16 mg/kg. Significant majority of the LODs for this constituent range between 0.07 and 0.08 mg/kg and it has never been detected. However, since the LOD for the 2014 event exceeded the Action Limit of 0.16 mg/kg, 3,3-dimethylbenzidine will be applied to this risk assessment at an EPC of 2.65 mg/kg as determined conservative by VDEQ.
8. The units of dioxin are ng/kg.
9. Barium is not considered a COPC because the observed maximum soil concertation of 140 mg/kg and the UPL of 114.8mg/kg are less than its FWBC of 209 mg/kg as noted in the 2001 ***Facility-Wide Background Study Report***.
10. Cadmium is not considered a COPC because the observed maximum soil concertation of 0.43 mg/kg and the UPL of 0.255 mg/kg are less than its FWBC of 0.69 mg/kg as noted in the 2001 ***Facility-Wide Background Study Report***.
11. Chromium is not considered a COPC because the observed maximum soil concertation of 35 mg/kg and the UPL of 21.04 mg/kg are less than its FWBC of 65.3 mg/kg as noted in the 2001 ***Facility-Wide Background Study Report***.
12. Even though the calculated UCL for mercury of 0.0216 mg/kg is less than its FWBC of 0.13 mg/kg, since mercury data was non-normally distributed and the highest detected concentration of mercury is 0.27 mg/kg, it is conservatively being considered a COPC.

Table 3 - Site Worker Receptor Soil Exposure Parameters

Parameter	Symbol	Unit	Site Worker
General Factors			
Averaging Time (cancer)	AT_{ow-c}	days	25,550
Averaging Time (noncancer)	AT_{ow-nc}	days	9,125
Body Weight	BW_w	kg	80
Exposure Frequency	EF_w	days/year	250
Exposure Duration	ED_{ow}	years	25
Soil Ingestion (Oral)			
Incidental Soil Ingestion Rate	IR_{ow}	mg/day	100
Soil Dermal Contact			
Exposed Skin Surface Area	SA_{ow}	cm^2	3,470
Soil to Skin Adherence Factor	AF_{ow}	mg/cm^2	0.12
Dermal Absorption	ABS	unitless	***Chem-Specific***
Soil Inhalation			
Particulate Emission Factor	PEF	m^3/kg	1.36E+09
Volatilization Factor	VF	m^3/kg	***Chem-Specific***
Exposure Time	ET_w	hours/day	8

Notes:
c = carcinogenic
nc = noncarcinogenic
w = worker
ow = outdoor worker

Parameter values from USEPA Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors (2014).

"***Chem-Specific***" values for Dermal Absorption and Volatilization Factor are shown in Table 4.

Table 4 - Toxicity Values and Carcinogenic Slope Factors

COPC	Carcinogen	Non-Carcinogen	Exposure Route			SFO	IUR	RfD_{Oral}	RfC_i	GIABS	ABS	VF
			Ingestion	Dermal	Inhalation	$(mg/kg\text{-}day)^{-1}$	$(\mu g/m^3)^{-1}$	(mg/kg-day)	(mg/m^3)			(m^3/kg)
Diphenylamine		X	X	X				2.5E-02		1.0E+00	1.0E-01	
2,4-Dinitrotoluene	X	X	X	X	X	3.1E-01	8.9E-05	2.0E-03	***1.0E+03***	1.0E+00	1.0E-01	
2,6-Dinitrotoluene	X	X	X	X		1.5E+00		3.0E-04		1.0E+00	9.9E-02	
2,4,6-Trinitrotoluene	X	X	X	X		3.0E-02		5.0E-04		1.0E+00	3.2E-02	
HMX		X	X	X				5.0E-02		1.0E+00	6.0E-03	
RDX	X	X	X	X		1.1E-01		3.0E-03		1.0E+00	1.5E-02	
Nitroglycerin	X	X	X	X		1.7E-02		1.0E-04		1.0E+00	1.0E-01	
Mercury		X			X				3.0E-04	1.0E+00		3.0E+04
Diethyl phthalate		X	X	X				8.0E-01		1.0E+00	1.0E-01	
Fluoranthene		X	X	X				4.0E-02		1.0E+00	1.3E-01	
Naphthalene	X	X	X	X	X	**2.0E-02**	3.4E-05	2.0E-02	3.0E-03	1.0E+00	1.3E-01	4.6E+04
Benz(a)anthracene	X		X	X	X	7.3E-01	1.1E-04			1.0E+00	1.3E-01	4.4E+06
bis(2-Ethylhexyl) phthalate	X	X	X	X	X	1.4E-02	2.4E-06	2.0E-02	***1.0E+03***	1.0E+00	1.0E-01	
Di-n-butyl phthalate		X	X	X				1.0E-01		1.0E+00	1.0E-01	
Selenium		X	X		X			5.0E-03	2.0E-02	1.0E+00		
Silver		X	X					5.0E-03		4.0E-02		
Dioxin (TCDD, 2,3,7,8)	X	X	X	X	X	1.3E+05	3.8E+01	7.0E-10	4.0E-08	1.0E+00	3.0E-02	2.0E+06
Perchlorate		X	X					7.0E-04		1.0E+00		
3,3'-Dimethylbenzidine	X		X	X		1.1E+01				1.0E+00	1.0E-01	

NOTES:

Italics indicate the RFC_i value was not available, but was required to run the REAMS risk analysis. 1,000 mg/m^3 has been subsitituted as the value for RFC_i.

For naphthalene, a carcinogenic oral slope factor was not available. The RFDo was substituted to make the REAMS model run.

In general, the most conservative values are derived from the most recent Region 3 RSL table and/or REAMS.

Bold indicates the oral slope factor (SFO) was not available, but was required to run the REAMS risk analysis. The this case, the RFDo value is used as the SFO.

The RFDo for Dioxin (TCDD-2,3,7,8) is $7.0x10^{-10}$ mg/kg-day; however, the lowest value able to be entered into REAMS is $1x10^{-8}$ mg/kg-day.

Table 5 - Cancer Risk Estimates and NonCancer Hazard Quotients

Constituent of Potential Concern (COPC)	Soil Exposure Route	Site Workers	
		HQ	Cancer Risk
Diphenylamine	Ingestion	3.603E-05	-
	Dermal	1.500E-05	-
	Inhalation	-	-
2,4 Dinitrotoluene	Ingestion	4.615E-04	1.022E-07
	Dermal	1.922E-04	4.250E-08
	Inhalation	***0.000E+00***	1.000E-10
2,6 Dinitrotoluene	Ingestion	3.579E-04	1.917E-07
	Dermal	1.475E-04	7.900E-08
	Inhalation	-	-
2,4,6 Trinitrotoluene	Ingestion	3.733E-04	2.000E-09
	Dermal	4.974E-05	3.000E-10
	Inhalation	-	-
HMX	Ingestion	5.154E-06	-
	Dermal	1.288E-07	-
	Inhalation	-	-
RDX	Ingestion	1.507E-03	1.776E-07
	Dermal	9.412E-05	1.110E-08
	Inhalation	-	-
Nitroglycerin	Ingestion	1.730E-01	1.051E-07
	Dermal	7.205E-02	4.370E-08
	Inhalation	-	-
Mercury	Ingestion	-	-
	Dermal	-	-
	Inhalation	1.315E-02	-

Table 5 - Cancer Risk Estimates and NonCancer Hazard Quotients

Constituent of Potential Concern (COPC)	Soil Exposure Route	Site Workers	
		HQ	Cancer Risk
Diethylphthalate	Ingestion	5.661E-07	-
	Dermal	2.360E-08	-
	Inhalation	-	-
Fluoranthene	Ingestion	1.777E-06	-
	Dermal	9.617E-07	-
	Inhalation	-	-
Naphthalene	Ingestion	7.620E-07	**1.000E-10**
	Dermal	4.125E-07	**1.000E-10**
	Inhalation	7.068E-04	2.570E-08
Benz(a)anthracene	Ingestion	-	6.000E-09
	Dermal	-	3.300E-09
	Inhalation	-	1.300E-09
Bis(2-ethylhexyl)phthalate	Ingestion	1.271E-05	1.300E-09
	Dermal	5.294E-06	5.000E-10
	Inhalation	***0.000E+00***	0.000E+00
Di-n-butylphthalate	Ingestion	9.932E-05	-
	Dermal	4.135E-05	-
	Inhalation	-	-
Selenium	Ingestion	7.021E-05	-
	Dermal	-	-
	Inhalation	8.260E-08	-
Silver	Ingestion	3.253E-05	-
	Dermal	-	-
	Inhalation	-	-

Table 5 - Cancer Risk Estimates and NonCancer Hazard Quotients

Constituent of Potential Concern (COPC)	Soil Exposure Route	Site Workers	
		HQ	Cancer Risk
Dioxin	Ingestion	4.296E-04	1.995E-07
	Dermal	5.367E-05	2.490E-08
	Inhalation	3.442E-04	1.869E-07
Perchlorate	Ingestion	6.800E-06	-
	Dermal	-	-
	Inhalation	-	-
3,3'-Dimethylbenzidine	Ingestion	-	8.913E-06
	Dermal	-	3.712E-06
	Inhalation	-	-

Bold indicates the oral slope factor (SFO) was not available, but was required to run the REAMS risk model. For napthalene, the RFDo value is used as the SFO.

Italics indicate the RFC_i value was not available, but was required to run the REAMS risk model. 1,000 mg/m^3 has been subsitituted as the value for RFC_i.for 2,4-Dintrotoluene and for bis(2-Ethylhexyl) phthalate.

Table 6 - Cumulative Excess Cancer Risk Estimate and NonCancer Hazard Index

	Site Workers	
	HQ	**Cancer Risk**
Total, Ingestion	**1.76E-01**	**9.70E-06**
Total, Dermal	**7.27E-02**	**3.92E-06**
Total, Inhalation	**1.42E-02**	**2.14E-07**
Total	**0.2632782668**	**1.382970000E-05**

Figures

Regional Site Location

Open Burning Ground (OBG), RFAAP, Radford, VA

SCALE: 1" = 1 mile

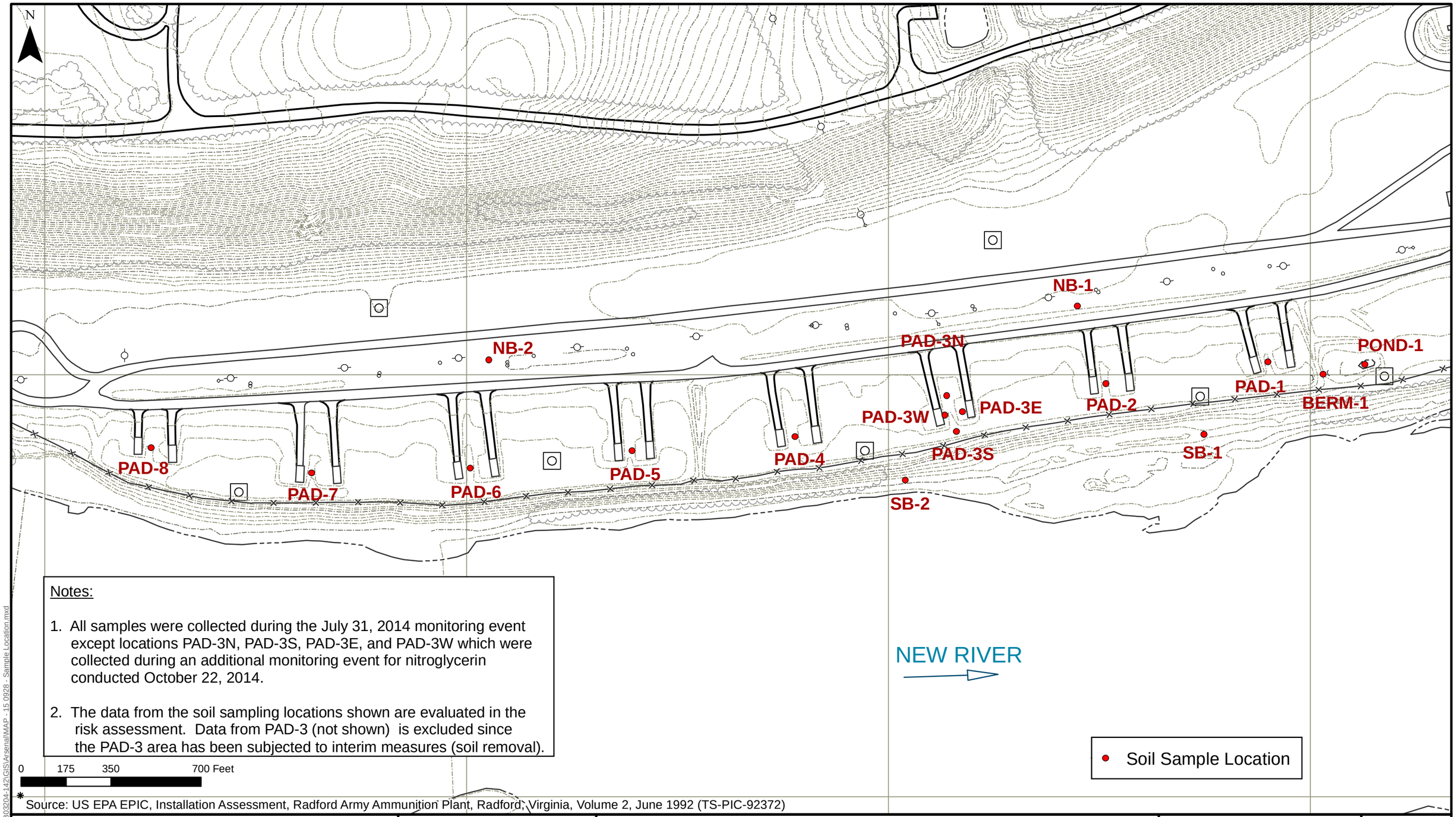
PLAN NO. B03204-207B

Draper Aden Associates
Engineering ◆ Surveying ◆ Environmental Services
2206 South Main Street
Blacksburg, VA 24060
540-552-0444 Fax: 540-552-0291
Richmond, VA
Charlottesville, VA
Hampton Roads, VA
Coats, NC

DESIGNED KMW
DRAWN WMD
CHECKED MJN
DATE 9/30/15

FIGURE
1

Path: P:\B03\200\B03204\B03204-142\GIS\Arsenal\MAP - 15 0930 - Regional Site Location.mxd



Notes:

1. All samples were collected during the July 31, 2014 monitoring event except locations PAD-3N, PAD-3S, PAD-3E, and PAD-3W which were collected during an additional monitoring event for nitroglycerin conducted October 22, 2014.

2. The data from the soil sampling locations shown are evaluated in the risk assessment. Data from PAD-3 (not shown) is excluded since the PAD-3 area has been subjected to interim measures (soil removal).

Source: US EPA EPIC, Installation Assessment, Radford Army Ammunition Plant, Radford, Virginia, Volume 2, June 1992 (TS-PIC-92372)

Draper Aden Associates
Engineering ◆ Surveying ◆ Environmental Services
2206 South Main Street
Blacksburg, VA 24060
540-552-0444 Fax: 540-552-0291
Richmond, VA
Charlottesville, VA
Hampton Roads, VA

DESIGNED	MJN
DRAWN	WMD
CHECKED	SN
DATE	9-29-15

Risk Assessment Soil Sample Locations

Open Burning Ground Soils Risk Assessment
RFAAP, Radford, Virginia

SCALE 1" = 350'

PLAN NO. B03204-207B

FIGURE 2

Path: P:\B03\200\B03204\B03204-142\GIS\ArsenalMAP - 15 0928 - Sample Location.mxd

Appendix A

ORDNANCE SYSTEMS INC.
Radford Army Ammunition Plant
P.O. Box 1
Radford, VA 24143
Telephone (540) 639-7631
Fax (540) 639-8588

March 26, 2015

Mr. Jeffery A. Steers
Director
Division of Land Protection and Revitalization
Virginia Department of Environmental Quality
629 East Main Street
Richmond, Virginia 23219

Subject: Soil Monitoring Program - Open Burning Ground (OBG) Risk Assessment
Radford Army Ammunition Plant (RFAAP), Radford, Virginia
EPA ID#: VA1210020730

Dear Mr. Steers:

In 2013, DEQ, RFAAP, the U.S. Army and Draper Aden Associates held several discussions on performing a risk assessment on the then current data collected from soil monitoring at the RFAAP Open Burning Ground (OBG). These discussions originated from DEQ's request to RFAAP to perform a risk assessment on the soils data due to nitroglycerin (a target constituent) exceeding its "1/10 Action Level" in several soil samples collected at the OBG in 2013. Several discussions on this matter over the summer and fall of 2013 concluded with a letter (attached) from RFAAP to DEQ dated December 5, 2013, summarizing the discussion between you and Mike Lawless of Draper Aden Associates. The letter concluded that the risk assessment of OBG soil data would be completed during the permit renewal process. The current DEQ permit for the OBG expires on October 28, 2015 and RFAAP is now in the process of preparing the permit renewal application. We are therefore revisiting this subject and submit the following information for your consideration. BAE requests concurrence of the proposed approach prior to performing the risk assessment. BAE also requests DEQ to clarify when they are requiring the facility to complete this risk assessment.

Background and Objective

Based on their review of the 2011 and 2012 OBG Soil Monitoring Annual Reports, DEQ first informed RFAAP in mid - 2013 that the facility should perform a quantitative risk assessment on the most recent annual soil monitoring data. DEQ indicated that such a risk assessment is required because more than 10 non-carcinogenic constituents were observed at reportable concentrations and one constituent, nitroglycerin (NG), exceeded its "1/10 Action Level" in several samples collected during the 2011, 2012 and 2013 sampling events. DEQ interpreted the relevant sections (Section 3.2) of the facility permit and concluded that such a risk assessment is required. The facility did not concur with that interpretation of the permit, and that permit language had not previously been interpreted in that manner.

Following further discussions by phone and email a conference call was held on September 19, 2013 among the representatives of DEQ and RFAAP (BAE, US Army, Draper Aden Associates). While DEQ and RFAAP concluded the meeting disagreeing on the interpretation of the relevant permit requirements and the need for a quantitative risk assessment, RFAAP agreed to further consider performing a quantitative risk assessment; the details of such a risk assessment were to be worked out with the DEQ's risk assessor's office.

Draper Aden Associates contacted Ms. Sonal Iyer in October 2013 and discussed the proposed risk assessment. Draper Aden Associates proposed consideration of several site specific factors in the risk assessment process. These included use of intermediate screening of data, or site specific exposure frequency, duration, and other conditions in the risk assessment process as opposed to the standard default requirements. While DEQ understood the basis for such considerations, Ms. Iyer confirmed that the risk assessment must be based on standard (conservative) default considerations because the permit does not have site use restrictions for OBG. DEQ also requires the risk assessment to be performed for all constituents (including carcinogens) and not just the non-carcinogens.

Ms. Iyer, however, agreed to treat the entire OBG as a single unit and therefore allow the use of a site-wide concentration (a statistical upper limit based on site-wide concentration of a given constituent). The risk assessment will be for an industrial receptor (site-worker). Finally, Ms. Iyer agreed that a comprehensive risk assessment report to the standards of the typical EPA risk assessment guidance is not required **but** the risk assessment will require a reasonable presentation that includes the relevant details expected in a full risk assessment report. In other words, the format is flexible but the essential elements of a standard risk assessment must be included in the report.

Additionally, during the September 19, 2013 conference call, it was agreed that BAE will propose criteria to be incorporated into the permit to evaluate future data with regard to risk such that a formal quantitative risk assessment will not be required for every event where 10 or more constituents are detected. The proposed criteria to be incorporated into the permit will be presented to DEQ in the upcoming permit renewal application.

Subsequently, BAE requested a follow up meeting with DEQ to entirely reconsider the need for the quantitative risk assessment. Consequently Mr. Mike Lawless of Draper Aden Associates met and discussed this with you. Based on that meeting and subsequent communications all parties agreed that the risk assessment would be completed during the permit renewal process, currently

on-going (see attached correspondence dated December 5, 2013).

Proposed Approach – OBG Risk Assessment:

The following approach for the risk assessment of soils data at the OBG is proposed. The proposed approach incorporates comments from the September 2013 conference call and additional technical discussions with DEQ's risk assessor's office (Sonal Iyer, October 2013) to perform a onetime risk assessment using the most recent soil data. BAE requests concurrence of the proposed approach prior to performing the risk assessment. BAE also requests DEQ to clarify when they are requiring the facility to complete this risk assessment.

- In accordance with the applicable permit conditions compare the data from the most recent soil monitoring event against the appropriate Action Levels. Screen from further consideration soil data that exceed Action Levels where interim measures are planned or ongoing in accordance with Section 8 of the current permit. Should more than 10 non-carcinogens be detected, compare the data for non-carcinogens against the "1/10 Action Level."

- If a target constituent concentration is greater than the "1/10 Action Level" in one or more samples, perform a risk assessment.
- The risk assessment will consist of human health risk assessment for site worker exposure to soil only. No multimedia exposure scenarios apply and are therefore not considered.
- Perform the risk assessment in accordance with DEQ risk assessment guidelines and applicable EPA Risk Assessment Guidance (RAGS).
- Perform the risk assessment for both carcinogens and non-carcinogens.
- Treat the entire OBG as a single unit. Consequently, upper confidence limits (UCL) will be computed on the detected soil concentrations for all applicable target constituents.
- Set UCLs as exposure point concentrations (EPC).
- Use applicable DEQ/EPA standard default values for risk assessment parameters.
- Perform Risk assessment using DEQ REAMS software or other software acceptable to DEQ.
- Compute individual and cumulative risks of exposure to multiple chemicals through multiple exposure routes (inhalation, ingestion, dermal absorption).
- Compile and submit the results in a risk assessment report to DEQ in standard format to the extent required for the present purpose.
- The results of the risk assessment will be compared to DEQ and EPA standard default acceptable threshold levels for cumulative risk, i.e., Hazard Quotient 1 and excess cancer risk of $1x10^{-4}$. Should the cumulative risks not exceed these threshold levels, no further action will be required. Should the cumulative risks exceed these threshold levels further discussion with DEQ will be required to determine what action, if any, is required.

If you have any questions or need further information, please feel free to contact me at 540-639-7785 or by email Jay.Stewart@baesystems.com .

Sincerely,

Jay Stewart
Environmental Manager
BAE Systems Inc, Ordnance Systems

cc: w/o enclosures
Aziz Farahmand, VDEQ-BRRO

Coordination: J. McKenna

cc: RFAAP ACO Staff/McKenna
Env. File
M. Lawless, Draper Aden Associates
M. Alberts, BAE

15-0900-055

Concerning the following:

Open Burning Ground (OBG) – Soil Monitoring Program
Radford Army Ammunition Plant, Radford, Virginia
EPA ID#: VA1210020730
Proposed Risk Assessment Approach - Soil

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

SIGNATURE: _____

PRINTED NAME: Luis A. Ortiz
TITLE: Lieutenant Colonel, US Army
Commanding

SIGNATURE: _____

PRINTED NAME: William M. Barnett
TITLE: General Manager
BAE Systems

ORDNANCE SYSTEMS INC.
Radford Army Ammunition Plant
P.O. Box 1
Radford, VA 24143
Telephone (540) 639-7631
Fax (540) 639-8588

December 5, 2013

Jeffery Steers, Director
DLP&R
Virginia Department of Environmental Quality
629 East Main Street
Richmond, VA 23219

Subject: RFAAP Open Burning Ground Risk Assessment

Dear Mr. Steers,

Based on your recent conversation with Mike Lawless of Draper Aden Associates, it is BAE's understanding that no action is required regarding the previously discussed risk assessment for the current soils data at the Open Burning Ground (HWMU-13). This risk assessment was discussed via conference call with your staff on September 19, 2013. The plan of action now is to address additional requirements for evaluation of future soil sampling data during the upcoming permit renewal process, and to write those requirements into the permit.

We have a meeting scheduled with Draper Aden Associates on January 9, 2014, to discuss the permit renewal process and will contact you after that meeting to begin the process and begin discussions regarding the procedures for additional evaluation of future soil sampling data.

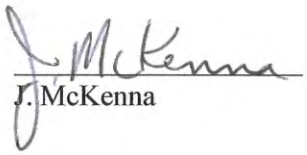
Please confirm that our understanding is correct.

If you have any questions or need further information, please feel free to contact me at 540-639-7785 or by email Jay.Stewart@baesystems.com .

Sincerely,

Jay Stewart
Environmental Manager
BAE Systems Inc, Ordnance Systems

13-0900-169

Coordination: 
J. McKenna

cc: RFAAP ACO Staff/McKenna
Env. File
M. Lawless, Draper Aden Associates
M. Alberts, BAE

13-0900-169

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
Street address: 629 East Main Street, Richmond, Virginia 23219
Mailing address: P.O. Box 1105, Richmond, Virginia 23218
www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4000
1-800-592-5482

April 29, 2015

VIA ELECTRONIC MAIL
Mr. Jay Stewart
Environmental Manager
Radford Army Ammunition Plant
4050 Pepper's Ferry Road
Radford, Virginia 24141

Re: Radford Army Ammunition Plant, Radford, VA
EPA ID No.VA1210020730, Open Burning Ground Risk Assessment - Timing and Methodologies in Conjunction with the Annual Soil Monitoring Event – Guidance from the Virginia Department of Environmental Quality

Dear Mr. Stewart,

The Virginia Department of Environmental Quality (DEQ) is in receipt of the Radford Army Ammunition Plant's (RAAP) letter dated March 26, 2015, from the Radford, Virginia, facility.

The letter requested the DEQ's concurrence of the RAAP's included proposed risk assessment approach to address the soils with respect to the Annual Soils Monitoring Event and in proximity to the Open Burning Ground (OBG) area prior to actually performing any risk assessment. RAAP's letter also requested that the DEQ clarify when the facility is required to complete this risk assessment.

It is noted that this risk assessment discussion only addresses contamination as determined by the Annual Soil Monitoring Event(s) and not the risk assessment methodology of the closure plan within the facility's Hazardous Waste open burning treatment permit or the multi-pathway risk assessment requirements as dictated by the permit renewal process.

Based on the DEQ's review of the 2011, 2012, and 2013 OBG, **Soil Monitoring Annual Reports**, submitted as required by the facility's Hazardous Waste open burning treatment permit, the RAAP was advised by the DEQ in a conference call on September 19, 2013, and in prior telephone and e-mail correspondence that the facility should perform a quantitative risk assessment on the most recent annual soil monitoring data. The DEQ indicated that such a risk

assessment is required because more than 10 non-carcinogenic constituents were observed at reportable concentrations and one constituent, nitroglycerin (NG), exceeded its "1/10 Action Level" in several samples collected during the 2011, 2012 and 2013 sampling events. In addition, additional technical discussions were held between the DEQ's hazardous waste risk assessor, Sonal Iyer and the facility to discuss the proposed risk assessment methodology in October 2013.

The soil samples in support of the **2014 Annual Soil Monitoring Event** were collected on July 31, 2014, with 2,4 Dinitrotoluene (carcinogen) and NG (noncarcinogen) detected at greater than the Hazardous Waste Permit-specified Action levels (ALs) at Pads 1,4 and 5 and at Pads 3 and 4, respectively. Verification re-sampling on September 18, 2014 appears to have eliminated AL exceedances of 2,4 Dinitrotoluene from consideration and NG from consideration, except at Pad 3.

To facilitate hot spot removal in accordance with the **Soil Monitoring Plan** within the Hazardous Waste Permit, *Section 8 – Interim Measures* was followed. To address NG at Pad 3, verification samples were taken on October 22, 2014, from the 0-6 inch soil layer in four locations approximately 20 feet from the point of the original exceedance of the AL in the North, South, East, and West directions. These four samples yielded NG concentrations less than the action level of 62 mg/kg. In accordance with *Section 8 – Interim Measures,* four additional random 0-24 inch core samples within a 5 foot radius of the hot spot were taken on December 8, 2014, each 6 inch interval analyzed, and the top 6 inch layer was determined to have NG levels above the detection limit.

In a letter dated March 9, 2015, the facility submitted a **Soil Removal Work Plan** to remove a 6 inch layer of soil within the 5 foot radius of the hot spot, and perform confirmation soil sampling of the sides and bottom of the excavation in accordance with the Hazardous Waste Permit, *Section 8 – Interim Measures*. Approval to proceed with this **Soil Removal Work Plan** will be provided in a separate letter.

3,3-dimethylbenzidine, a carcinogen, considered a product of incomplete combustion, was not detected in soil samples collected on July 31, 2014, for the 2014 **Annual Soil Monitoring Event** however the detection and reporting limits for this analyte are above the AL. During each previous yearly soil monitoring event, no action has been taken with regard to 3,3-dimethylbenzidine under similar scenarios, however soil samples will continue to be analyzed for this compound in the future sampling events as required by the Soil Monitoring Plan.

It was agreed between the parties (the DEQ and the RAAP), based on previous discussions documented in earlier correspondence, that the risk assessment associated with **Annual Soil Monitoring Event(s**) be done during the OBG hazardous waste permit renewal process. This process is currently underway with the current permit expiration date of October 28, 2015. Therefore, the risk assessment shall be submitted within 90 days of RAAP's receipt of this letter (or by July 28, 2015). Also, to reiterate, this risk assessment even if submitted with the permit renewal Part B Application, is not in any way related to or replaces the closure plan or the multi-pathway risk assessment.

The following are the requirements for the **Annual Soil Monitoring Event** related risk assessment – mostly derived from RAAP's March 26, 2015 proposed risk assessment methodology with the DEQ's changes indicated by underlined and struck-out text.

1. In accordance with the applicable permit conditions, compare the data from the most recent soil monitoring event against the appropriate Action Levels in the current hazardous waste permit as updated every 3 years. Data from previous soil monitoring events may be input as appropriate, but the most recent data is preferred. Screen from further consideration soil data that exceed Action Levels where interim measures are planned or ongoing in accordance with Section 8 of the current hazardous waste OBG permit. Should more than 10 non-carcinogens be detected, compare the data for non-carcinogens against the "1/10 Action Level."

2. If a target non-carcinogen (see above) constituent concentration is greater than the "1/10 Action Level" in one or more samples, perform a quantitative risk assessment for industrial (composite) worker.

3. The risk assessment will consist of human health risk assessment for site worker exposure to soil (oral. dermal and inhalation) only (250 days per year). No multimedia exposure scenarios apply and are therefore not considered.

4. Perform the risk assessment in accordance with DEQ risk assessment guidelines using REAMS (preferable) or EPA Region 3 RSL equation and defaults.

5. Perform the risk assessment for both carcinogens and non-carcinogens. Address 3,3-dimethylbenzidine – described in a previous paragraph.

6. Treat the entire OBG as a single unit. Consequently, upper confidence limits (UCL) will be computed on the detected soil concentrations for all applicable target constituents. Approve sample locations/constituents/UCLs in advance with DEQ oversight.

7. Set UCLs as exposure point concentrations (EPC).

8. Use applicable DEQ/EPA standard default values for risk assessment parameters.

9. Delineate split samples versus two separate samples in interim-measures/removals/risk assessment scenarios. Corresponding samples within 1.5 feet of each other may be considered as one sample for the purpose of this risk assessment.

10. Compute individual and cumulative risks of exposure to multiple chemicals through multiple exposure routes (inhalation, ingestion, dermal absorption).

11. Compile and submit the results in a risk assessment report to DEQ in standard format to the extent required for the present purpose.

12. The results of the risk assessment will be compared to DEQ and EPA standard default acceptable threshold levels for cumulative risk, i.e., Hazard Quotient 1 and excess cumulative cancer risk of $1x10^{-4}$. Should the cumulative risks not exceed these threshold levels, no further action will be required. Should the cumulative risks exceed these threshold levels further discussion with DEQ will be required to determine what action, if any, is required.

13. Submit gridded, to-scale diagrams depicting all soil sampling locations and depths including samples making up composite samples.

This methodology as described above is requested to be submitted as part of the **Soil Monitoring Plan** in the Part B Permit Application for the hazardous waste, OBG Permit renewal submission that is due to the DEQ by June 29, 2015.

If you have any questions or comments concerning this matter, please contact me at (804) 698-4467 or by e-mail at Ashby.Scott@deq.virginia.gov, for risk assessment related questions, please feel free to contact Ms. Sonal Iyer at (804) 698-4259 or by e-mail at Sonal.Iyer@deq.virginia.gov and for any questions regarding statistical analysis or the UCLs please contact Mr. Hasan Keceli at (804) 698-4246 or by email at Hasan.Keceli@deq.virginia.gov.

Sincerely,

Ashby R. Scott
Hazardous Waste Permit Writer
Office of Waste Permitting and Compliance

cc: Andrea Barbieri, EPA, Region III (3LC50)
Aziz Farahmand, DEQ, Blue Ridge Regional Office
Leslie A. Romanchik, DEQ, CO
Sonal Iyer, DEQ, CO
Pat McMurray, DEQ, CO
Hasan Keceli, DEQ, CO
Julia King–Collins, DEQ, CO
Central Hazardous Waste Files

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
Street address: 629 East Main Street, Richmond, Virginia 23219
Mailing address: P.O. Box 1105, Richmond, Virginia 23218
www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4000
1-800-592-5482

August 21, 2015

VIA ELECTRONIC MAIL
Mr. Jay Stewart
Environmental Manager
Radford Army Ammunition Plant
4050 Pepper's Ferry Road
Radford, Virginia 24141

Re: Radford Army Ammunition Plant, Radford, VA
EPA ID No.VA1210020730, Open Burning Ground Risk Assessment for 2014 Soil Monitoring Event Date – Approval of Sample Locations, Constituents of Potential Concern and Upper Confidence Limits and 60 Day Extension Request Approval

Dear Mr. Stewart,

The Virginia Department of Environmental Quality (DEQ) is in receipt of the Radford Army Ammunition Plant's (RAAP) electronic submission dated June 26, 2015, from the Radford, Virginia, facility in response to the DEQ's April 29, 2015 letter providing guidance on the Open Burning Ground (OGB) risk assessment.

The electronic submission requested the DEQ's concurrence of the RAAP's proposed soil sample locations, Constituents of Potential Concern (COPC) and Upper Confidence Limits (UCLs) planned to be used in the risk assessment. The DEQ has reviewed the submitted tables and figures and concurs that the proposed sample locations and UCLs are acceptable for use in the risk assessment and are approved by the DEQ.

However given the concerns raised by DEQ with the exclusion of 3,3-dimethylbenzidine from the COPC list during calls on July 10, 2015 and July 30, 2015 and from the DEQ's review of the subsequent letters explaining the reasoning for the exclusion, submitted on August 10, 2015 and August 13, 2015, the DEQ is requiring that 3,3-dimethylbenzidine be included in the COPC list to be evaluated at the standard of ½ of the modified detection limit, which was due to sample dilution. The DEQ does concur with the other COPC's proposed by RAAP for inclusion of the risk assessment.